Results of Spiny Dogfish *(Squalus acanthias)* Tagging in the Strait of Georgia during 1981.

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RESULTS OF SPINY DOGFISH (*Squalus acanthias*) TAGGING IN THE STRAIT OF GEORGIA DURING 1981

by

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ABSTRACT

Smith, M. S., G. A. McFarlane, and L. G. Egan. 1983. Results of spiny dogfish (Squalus acanthias) tagging in the Strait of Georgia during 1981. Can. Data Rep. Fish. Aquat. Sci. No. 424: iii + 95 p.

During 1981, 6968 dogfish were tagged in the Strait of Georgia using the modified Petersen disc tag. A total of 21,974 dogfish has been tagged and released in British Columbia waters from April 1978 to December 31, 1981. As of December 31, 1981, 327 of these fish have been recovered. Of these, 125 were recovered during 1981. Preliminary examination of the 1981 recoveries indicates that 70% (77) remained in the Strait of Georgia; 21% (23) were recaptured north of the Strait of Georgia; 7% (8) in Puget Sound and Juan de Fuca; and 2% (2) moved to the west coast of Vancouver Island and Washington.

Key words: spiny dogfish, tagging, migration, age determination, Strait of Georgia

RÉSUMÉ

Smith, M. S., G. A. McFarlane, and L. G. Egan. 1983. Results of spiny dogfish (Squalus acanthias) tagging in the Strait of Georgia during 1981. Can. Data Rep. Fish. Aquat. Sci. No. 424: iii + 95 p.

En 1981, 6968 aiguillats one été étiquetés dans le détroit de Géorgie au moyen d'un disque de Petersen modifié. Un total de 21974 aiguillats one été étiquetés et relâchés dans les eaux de la Colombie-Britannique d'avril 1978 au 31 décembre 1981. Au 31 décembre 1981, 327 de ces poissons avaient été repris. De ce nombre, 125 one été repris en 1981. Une étude préliminaire des reprises de 1981 indique que 70% (77) sont demeurés dans le détroit de Géorgie, que 21% (23) ont été recapturés au nord du détroit de Géorgie, 7% (8) dans le Puget Sound et le détroit Juan de Fuca et que 2% (2) se sont dirigés vers la côte ouest de l'île Vancouver et l'état de Washington.

Mots-clés: aiguillat commun, étiquetage, migration, détermination de l'âge, détroit de Géorgie

INTRODUCTION

This is the fourth report describing the results of the spiny dogfish (Squalus acanthias) tagging program and contains data similar to the previous three reports (Brown et al. 1979; Beamish et al. 1981; McFarlane et al. 1982). The tagging programs were carried out by students and teachers of Campbell River High School and Southgate Secondary School in the Campbell River area, and by staff of the Pacific Biological Station in the Central Strait area. This report describes the number and location of dogfish tagged and summarizes recovery information to December 31, 1981. The primary purpose in 1981 remained the same, to examine the growth and the movements of dogfish in the Strait of Georgia.

The report also describes preliminary results of studies designed to validate the method of age determination; growth studies based on tagged and captive fish; and performance of the modified Petersen disc tag and titanium pins.

MATERIAL AND METHODS

All dogfish were tagged in the Strait of Georgia. During April-May tagging was concentrated in the Campbell River area off Cape Mudge, Marina Is., and Oyster Bay; and during November in the Central Strait area in Northumberland Channel, Howe Sound, Malaspina Strait, and Jervis Inlet.

Dogfish were caught using longline gear at depths varying from 24 m to 170 m in the Campbell River area and 37 m to 207 m in the Central Strait area. The soak time varied between sets; soak time being defined as the time between the first hook overboard and the first hook coming aboard when the longline is retrieved. The range in soak time was 45 to 85 min in the Campbell River area and 30 to 145 min in the Central Strait area.

As in previous years, Mustad #2 Halibut hooks (number 6283 quality 9401) were used on both cruises. These hooks were fastened to nylon gangions 55 cm long and "snapped" on the longline approximately 2 to 3 m apart. All barbs on the hooks were bent over to facilitate hook removal and minimize damage to the fish. In the Campbell River area each set contained about 300 hooks, while in the Central Strait sets contained 230-600 hooks. Pieces of thawed herring were used as bait on both cruises.

The tagging procedure in the Campbell River area was conducted as in previous years (Brown et al. 1979; Beamish et al. 1981; McFarlane et al. 1982). Under the guidance of a teacher, two teams of three students measured, sexed, and tagged the dogfish and recorded the data. One student handled the fish, either from the fisherman to the anaesthetic tank or from the holding tubs to anaesthetic tanks. This tank contained 150 L of water to which 25 gm

of tricaine methane sulfonate (MS222) were added. Not more than seven fish were held in the anaesthetic tank at one time. Measurements were made to the nearest millimetre from the tip of the snout to the tip of the upper lobe of the caudal fin when it was depressed in a line horizontal with the body. One student recorded hook data at the stern as the line was hauled.

In November, the fish were transferred directly to a 3000 L holding tank as they were removed from the hooks. A constant flow of sea water was maintained in the holding tank. The fish were transferred to the anaestnetic tank prior to tagging. Dogfish remained in the anaesthetic until they became letnargic. They were then removed from anaesthetic, measured, tagged, and injected with oxytetracycline (OTC). Some fish were held in the holding tank prior to release if they appeared in poor condition.

All dogfish were tagged with a pair of modified Petersen discs. These are the same tags that have been used since November 1979 (Beamish et al. 1981; McFarlane et al. 1982). The pins are manufactured from Grade 4 commercially pure titanium wire (Ti70A). The pins are specifically manufactured for this program and are 7.6 cm in length, 0.99 mm in diameter, and have a 2.4 mm head. The discs are now "stamped out" from opposite sides during manufacturing thus eliminating the "burr" or sharp edge and it is no longer necessary to file the inside edge of each disc (McFarlane et al. 1982) to reduce wounding due to abrasion. As in 1980 the titanium pins were bent up and away from the body of the fish to further reduce wounding caused by abrasion from the lower edge of the disc. The legend on one side of the tag has been corrected from "NOTE WHEN & WHERE CAUGHT" to "SAVE FISH & RECORD LOCATION". It is hoped this will improve the recovery rate of the whole fish.

Data recorded for each fish included tag number, length, sex, area captured, and area released. Additional observations on the general condition of the fish, injuries, and tag condition were also recorded.

All dogfish tagged in November in the Central Strait area were injected with oxytetracycline: 2719 fish (76%) received an intermuscular and 853 fish (24%) received an intraperitoneal dose. The OTC was injected at a rate of 25 mg/kg of body weight. The oxytetracycline was purchased under the brand name of Liquamycin. Liquamycin is an oxytetracycline hydrochloride dissolved in a stabilizing agent and supplied in 250 mL bottles at a concentration of 100 mg/L.

OTC was injected with a 5 cc disposable syringe equipped with a 20 g, 3.8 cm needle. The tagging board was marked with injection rates based on a length-weight conversion so that the injection could be determined to the nearest 0.1 mL.

On three occasions since 1979 dogfish have been transported to the fish culture facilities at the Pacific Biological Station to observe tag performance, growth and mortality. In May 1979, 41 fish were transported from Campbell River, 5 in March 1980 and 21 in November 1981. The dogfish are now measured three times per year. Records are kept regarding mortality, length, sex, weight, and tag performance.

As part of the recovery procedure tagged dogfish posters, identical to those used in previous years of the study, were given wide distribution. Posters were maintained at marinas, government docks, and major fishing companies. A reward of $2.00 was paid for each tag and whole fish returned with information on date and location of recovery. Efforts are made to recover the whole fish to determine growth and to recover spines from injected fish to examine the oxytetracycline mark.

RESULTS AND DISCUSSION

A total of 6968 dogfish were tagged in the Strait of Georgia during 1981. Location of sets and a summary of release data are listed in Tables 1-4. All fish were tagged with a modified Petersen disc; 3394 in the Campbell River area, and 3574 in the Central Strait area. Of the fish released in the Campbell River area, 167 were tagged off Marina Island, 401 off Oyster Bay and 2826 off Cape Mudge (Table 5, 6). In the Central Strait, 714 were tagged in Northumberland Channel including Departure Bay and Entrance Is., 1480 in Howe Sound including Collingwood Channel, Gibsons Landing, off Langdale, West Bay and Horseshoe Bay, 110 north of Thormanby Is. including Bjerre Shoal, 1267 in the Jervis Inlet area including Stillwater Bay, Sinclair Bank, Thunder Bay, Hardy Island, Saltery Bay, and off Cape Cockburn (Table 7, 8). Locations of tagging areas are indicated by triangles in Fig. 3.

Dogfish tagged in the Strait of Georgia ranged in length from 46 to 120 cm (Table 5, 7; Fig. 1, 2). Males ranged in length from 46 to 98 cm with a mean length of 77 cm, and females ranged in length from 48 to 120 cm with a mean length of 87 cm.

A total of 3945 males (57%) and 3020 females (43%) were tagged during the two cruises. In the Campbell River area males ranged in length from 46 to 98 cm and females from 48 to 120 cm. Males predominated (81%, 2733 fish) (Table 5, 6; Fig. 1), particularly in the Cape Mudge (85%); and Oyster Bay (75%) areas.

In the Central Strait area, males ranged from 49 to 95 cm and females ranged from 50 to 119 cm. Males comprised 34% of the catch and dominated only in the Collingwood Channel area (74%). Females predominated in the catch in the West Bay and Jervis Inlet areas, 70% and 96%, respectively (Table 7, 8; Fig. 2).

Eighty-one percent of the males and 77% of the females captured during 1981 were equal to or larger than the acceptable commercial length of 71 cm.

The catch per unit effort (CUPE) varied considerably for areas fished, ranging from 77 to 411 fish per 1000 hooks (Table 9). The CPUE is similar to previous years (Brown et al. 1979; Beamish et al. 1981; McFarlane et al. 1982).

An incidental catch rate of 2% (612 fish) was recorded during the two cruises (Table 10). Ratfish (Hydrolagus colliei) and yelloweye rockfish (Sebastes ruberrimus) dominated the incidental catch.

Recaptures

A total of 21,974 dogfish have been tagged and released in British Columbia waters since 1978 (Table 11); of which 20,910 have been tagged and released in the Strait of Georgia and 1064 in Dixon Entrance, Hecate Strait and Queen Charlotte Sound. Three hundred and twenty-seven (1.6%) of those tagged in the Strait of Georgia have been recovered and only 5 (0.5%) have been recovered from the northern release areas.

Recaptures from tagging in 1981

A total of 24 (0.3%) dogfish were recovered from the two 1981 tagging operations prior to December 31, 1981 (Table 12, 13; Fig. 3). Of these, 11 were from the Campbell River area and 13 from the Central Strait areas.

Fifteen dogfish were recovered in the Strait of Georgia, including 2 in Discovery Passage, 2 in Juan de Fuca Strait and one in Johnstone Strait. In addition, 6 recoveries were made in fish plants and had no corroborating information.

The fish released in November 1981 in the Central Strait were at liberty for a maximum 36-52 days. The large number of recoveries is a reflection of the longline fisnery in the area. A total of 8 of the 13 recaptures were recovered by longline.

The longest net distance travelled was 235 km and the maximum time at large for 1981 was 192 days (Table 13).

Of the 24 recoveries, 17 whole fish were returned, and 15 were equal or larger than 71 cm. Of all the usable recoveries only three were smaller than 71 cm.

Recaptures from tagging in 1980

A total of 7482 dogfish were tagged in the Strait of Georgia (Fig. 4) and an additional 1064 were tagged in the Queen Charlotte Sound - Hecate Strait - Dixon Entrance area (Fig. 5). During 1981 a total of 58 (0.8%) (Tables 14-16) and 4 (0.4%) (Table 17) were recovered from each area, respectively. Of the recoveries made in 1981 from tagging in the Strait of Georgia, 19 have been recovered from the February Central Strait - Gulf Island tagging areas (Table 14), 23 from the March Central Strait tagging areas (Table 15), and 16 from the April-May Campbell River tagging areas (Table 16).

Forty-four fish were recovered in the Strait of Georgia including 3 from Discovery Passage and 2 from Bute Inlet; 4 in the Strait of Juan de Fuca; 2 from Bellingham Bay; 1 from each of Johnstone Strait, the west coast of Vancouver Island and off the coast of Washington; and 5 fish were recovered in processing plants and their locations are unknown.

Of the 52 fish for which recovery information was received, 19 were recaptured by trawl, 14 by longline, 11 by sports fisherman, 6 by salmon gillnet, 1 by salmon troll, and 1 by cod handline (Table 14-16). Eighteen whole fish were returned, of which 15 were larger than the minimum commercial size limit of 71 cm.

The longest net distance travelled was 272 km for fish released in the Strait of Georgia and 565 km for fish released in Queen Charlotte Sound - Hecate Strait - Dixon Entrance.

Recaptures from tagging in 1979

A total of 4542 dogfish were tagged in the Strait of Georgia in 1979. Thirty-nine (0.9%) were recovered in 1981 (Table 18, 19; Fig. 6). A total of 141 fish (3.1%) have been recovered to date.

Thirty-two fish were recovered in the Strait of Georgia, including 13 north of the Campbell River tagging areas. Three fish were recovered from Johnstone Strait and 4 were recaptured and returned with no recovery area reported.

Of the 36 fish for which the recapture method was known, 15 were recaptured by trawl, 8 by sports fishermen, 7 by longline, 4 by salmon gillnet, 1 by salmon seine and one by cod handline. Twenty-nine whole fish were returned, of which 26 were larger than the minimum size limit of 71 cm.

The longest net distance travelled was 206 km.

Recaptures from tagging in 1978

During 1978, 1918 dogfish were tagged in the Campbell River area (Table 20; Fig. 7), of which 1688 were double tagged with Petersen disc tags and Floy anchor tags. Four fish (0.2%) were recovered during 1981 bringing the total to 44 fish (2.2%) recovered to date. Of the 4 fish recovered during 1981 only 1 fish had both tags intact. The remaining 3 fish had only the Petersen disc tag still attached. In addition, 1 fish captured in 1980 was returned during 1981 and had both tags intact.

Three fish were recaptured in the Strait of Georgia (Fig. 7) and 1 was recovered in the processing plant and has no recovery information. Two of the fish were recaptured by sport fishermen and 1 by longline. The longest net distance travelled was 182 km.

Tag wounds

All whole fish returned were examined for tag wounds. The discs and wire pins showed no damage. As reported previously (McFarlane et al. 1982), when the Petersen disc tags were loosely attached the edges abraided the skin, causing open wounds. The wounds were not infected, however, many were classified as severe. Fish tagged with the modified tag where the discs were "stamped out" from oppsite sides during manufacturing and the pins turned up and away from the body showed little or no wounding.

Growth of tagged dogfish

Measurements were made on all whole dogfish returned between 1978 and 1981 (Table 21). Fish at liberty less than 0.5 yr were not used in the growth calculations. There was little mean positive growth of recovered dogfish. Reasons for the net negative change in length are discussed in McFarlane et al. (1982). When lengths of recovered fish were measured without prior freezing there was a trend to positive growth after 1 yr at liberty.

Fish tagged and transported to the Pacific Biological Station in 1979 exhibited a relatively large mean positive growth (Table 22, 23). These fish do not appear to have had any long-term interference with growth from the tagging operation. Mortality rates were approximately equal among the faster and slower growing individuals (McFarlane, unpubl. data).

Oxytetracycline studies

As of December 31, 1981, 10 dogfish tagged and injected intermuscularly with oxytetracycline during 1980 had been recovered. The spines from 5 of these fish were returned to the Pacific Biological Station. Examination of the spines under ultraviolet light revealed an oxytetracycline mark. This mark appears as a thin yellow line near the base of the spine (Fig. 8).

Of the 4 fish recovered in early 1981, all had laid down one ring after the oxytetracycline mark. The fish recaptured in late 1981 had one complete ring and the beginning of a second ring was identified. These preliminary observations indicate that the rings do form annually and that the ageing technique appears valid.

Of the 3572 fish tagged and injected with oxytetracycline during November 1981, 13 were recaptured by December 31, of which 11 were returned whole. Examination of the spines from these fish indicated that the majority (9) had laid down a satisfactory mark.

ACKNOWLEDGMENTS

This study is intended to provide specific information to aid in the management of dogfish stocks as well as allow high school students to participate in the planning, execution and analysis of a practical biological research problem. The success of this study is a direct result of the participation and enthusiasm of students of Campbell River Senior Secondary and Southgate Secondary schools. Student teams were supervised by teachers, David Brown, Van Egan and Bill Kennedy. Thanks are extended to Captain Hugh Watson of INVADER NO. 1, Captain Fred Strom of the COWICHAN STAR and to Greg Thomas who assisted in the tagging operations in November.

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Table 1. Set location and catch data for the Campbell River area, April-May 1981.

Set no.	Date	Area	Depth (m)	Time set PDT[a]	Soak time (min)	No. of hooks set	No. of dogfish	No. of incidental catch
1	April 24	Cape Mudge	152	0845	60	299	126	8
2	24	Cape Mudge	146	1230	60	300	100	15
3	April 29	Cape Mudge	170	0835	75	295	166	2
4	29	Cape Mudge	154	1155	70	291	159	7
5	April 30	Cape Mudge	159	0905	55	293	121	14
6	May 5	Cape Mudge	148	0830	65	302	129	0
7	5	Cape Mudge	146	1100	70	297	107	18
8	5	Cape Mudge	88	1350	60	308	17	10
9	May 7	Cape Mudge	143	0950	60	300	146	2
10	7	Cape Mudge	150	1245	65	300	141	4
11	May 11	Marina Is.	33	0850	95	299	28	78
12	11	Cape Mudge	141	1200	50	300	112	10
13	11	Cape Mudge	150	1445	65	289	115	4
14	May 12	Marina Is.	24	0855	65	301	18	50
15	12	Marina Is.	51	1120	70	298	23	14
16	12	Cape Mudge	148	1410	45	295	149	0
17	May 13	Cape Mudge	146	0840	60	300	132	4
18	13	Cape Mudge	150	1100	70	300	102	10
19	13	Cape Mudge	137	1320	75	300	162	0
20	May 14	Oyster Bay	97	0900	60	300	107	0
21	14	Oyster Bay	101	1100	60	300	81	5
22	14	Oyster Bay	97	1300	65	300	26	24
23	May 15	Oyster Bay	101	0850	60	300	88	2
24	15	Oyster Bay	101	1055	65	300	99	1
25	15	Oyster Bay	92	1300	45	300	49	3
26	May 19	Cape Mudge	143	0845	65	298	92	3
27	19	Cape Mudge	154	1100	70	294	143	4
28	19	Cape Mudge	148	1325	65	297	148	4
29	May 20	Cape Mudge	37	0825	60	297	26	18
30	20	Cape Mudge	156	1020	65	295	160	3
31	20	Cape Mudge	152	1255	70	295	140	12
32	May 21	Cape Mudge	150	0845	60	300	101	4
33	21	Cape Mudge	152	1055	55	301	125	4
34	21	Cape Mudge	124	1310	50	295	94	4
35	May 22	Cape Mudge	115	0835	60	294	164	5
36	May 26	Marina Is.	46	0935	85	292	62	8
37	May 26	Marina Is.	55	1200	80	298	44	26
Total						11,023	3,802	380

[a]Pacific Daylight Time.

Table 2. Set location and catch data for the Central Strait area, November 1981.

Set no.	Date	Area	Depth (m)	Time set PST[a]	Soak time (min)	No. of hooks set[b]	No. of dogfish	No. of incidental catch	
1	Nov 9	Northumberland Channel	165-135	1000	105	500	260	1	sets
2	9	"	119-156	1305	65	500		0	combined
3	Nov 10	Entrance Is.	165-128	0740	70	500	104	14	
4	10	Northumberland Channel	165-119	1110	60	500	85	9	
5	10	Entrance Is.	165-128	1430	60	500	8	19	
6	Nov 11	Northumberland Channel	119	0805	55	200	51	1	
7	11	"	110-136	1330	45	550	156	2	
8	Nov 12	Collingwood Chan., Howe Sd.	110-82	0810	60	300		1	sets
9	12	"	110-117	0840	130	300	189	1	combined
10	12	"	73-82	1320	60	300		0	
11	12	"	73-92	1345	85	300	172	4	"
12	Nov 13	Collingwood Chan., Howe Sd.	73-92	0805	80	230		0	
13	13	"	92	0830	110	230		1	sets
14	13	"	55-92	1140	65	300	384	0	combined
15	13	"	92-82	1205	120	300		1	
16	13	"	92-82	1530	30	330		0	
17	Nov 14	Collingwood Chan., Howe Sd.	92	0740	50	275	199	1	sets
18	14	"	92-82	0800	85	235		0	combined
19	Nov 15	Langdale, Howe Sd.	92	0740	70	250	120	0	
20	15	"	82-92	0815	105	275		0	"
21	15	"	101-92	1105	55	250	23	2	
22	15	"	101-92	1130	105	250	38	0	
23	15	Collingwood Chan., Howe Sd.	92-101	1445	45	275	141	2	sets
24	15	"	92-119	1505	70	275		1	combined
25	Nov 16	off Langdale, Howe Sd.	92-95	0655	60	250	27	0	
26	16	West Bay, Howe Sd.	55-77	0925	85	265	42	1	
27	16	"	75-174	1200	60	550		1	sets
28	16	"	75-174	1445	25	300	294	0	combined
29	Nov 18	Welcome Pass	73-128	1540	50	250	14	5	
30	Nov 19	Thormanby Is.	92-119	0735	80	220	14	3	
31	19	"	92-110	0750	145	245	22	0	
32	19	Epsom Pt.	73-101	1100	50	250	16	3	
33	19	Bjerre Shoal	81-99	1300	90	250		1	sets
34	19	"	82-110	1400	75	250	46	0	combined
35	Nov 20	Sinclair Bk., Malaspina St.	81-137	0805	55	430	80	5	
36	20	"	101-128	1030	100	250	10	5	
37	20	"	165-128	1100	120	300	35	6	
38	20	Stillwater Bay, Malaspina St.	156-101	1400	55	250	46	0	
39	20	"	165-92	1425	105	250	68	0	
40	Nov 21	"	101-82	0800	70	465	48	10	
41	21	Thunder Bay, Jervis Inlet	82-119	1140	65	250		3	
42	21	"	101-137	1205	120	250		3	sets
43	21	"	82-119	1340	105	250	235	4	combined
44	21	"	101-137	1455	85	250		6	
45	Nov 22	Thunder Bay, Jervis Inlet	119-82	0745	65	250	7	5	
46	22	"	110-119	0805	115	300	7	6	

Table 2 (cont'd)

Set no.	Date	Area	Depth (m)	Time set PST[a]	Soak time (min)	No. of hooks set[b]	No. of dogfish	No. of incidental catch	
47	Nov 22	Thunder Bay, Jervis Inlet	37-92	0925	95	275	6	4	
48	22	Hardy Is., Jervis Inlet	128-201	1220	55	300		3	sets
49	22	"	128-201	1245	85	300	122	3	combined
50	22	"	128-201	1515	70	275	57	2	
51	Nov 23	"	146-207	0740	50	275	44	7	
52	23	"	128-201	0920	60	275	55	3	
53	23	"	128-201	0945	110	275	37	6	
54	23	"	174-201	1115	105	275	48	3	
55	23	"	128-201	1300	105	250	32	1	
56	23	"	183-128	1425	55	275	62	5	
57	Nov 24	Cape Cockburn, Malaspina St.	110-183	0755	55	600	126	13	
58	24	"	110-165	1045	60	300	48	2	
59	24	"	110-165	1105	115	300	55	10	
60	24	"	165-110	1230	130	300	54	8	
61	24	"	128-101	1410	80	300	27	14	
62	Nov 25	Northumberland Channel	165-110	0815	60	550		10	sets
63	25	"	128	1145	60	275	132	5	combined
Total						19,650	3,845	232	

[a]Pacific Standard Time.

[b]Estimated no. of hooks.

Table 3. Summary of dogfish tagged in the Campbell River area, April-May 1981.

Set no.	Number tagged M	F	T	Modified Petersen disc tag no.	Location of release
1	93	28	121	DF157000-157057 DF157100-157161	Cape Mudge
2	72	22	94	DF157058-157099 DF157162-157216	Cape Mudge
3	149	4	153	DF157217-157286 DF157300-157383	Cape Mudge
4	143	9	152	DF157287-157299 DF157384-157459 DF157500-157563	Cape Mudge
5	102	12	114	DF157461-157499 DF157564-157623 DF157700-157716	Cape Mudge
6	83	31	114	DF157624-157679 DF157717-157774	Cape Mudge
7	65	32	97	DF157680-157699 DF157775-157827 DF157900-157924	Cape Mudge
8	6	11	17	DF157828-157844	Cape Mudge
9	72	37	109	DF157845-157899 DF157925-157973	Cape Mudge
10	104	21	125	DF157977-158055 DF158100-158147	Cape Mudge
11	1	24	25	DF158056-158080	Marina Is.
12	69	23	92	DF158081-158099 DF158148-158221	Cape Mudge
13	48	34	82	DF158222-158261 DF158300-158341	Cape Mudge
14	2	15	17	DF158262-158278	Marina Is.
15	7	16	23	DF158279-158289 DF158342-158353	Marina Is.
16	102	36	138	DF158290-158299 DF158354-158459 DF158500-158522	Cape Mudge
17	107	14	121	DF158460-158499 DF158523-158581 DF158600-158621	Cape Mudge
18	86	14	100	DF158582-158599 DF158622-158670 DF158700-158732	Cape Mudge
19	140	11	151	DF158671-158699 DF158733-158840 DF158900-158915	Cape Mudge
20	68	26	94	DF158841-158884 DF158916-158965	Oyster Bay

Table 3 (cont'd)

Set no.	Number tagged M	F	T	Modified Petersen disc tag no.	Location of release
21	54	15	69	DF158885-158899 DF158966-159000 DF159100-159118	Oyster Bay
22	12	14	26	DF159001-159010 DF159119-159134	Oyster Bay
23	59	18	77	DF159011-159048 DF159135-159173	Oyster Bay
24	69	20	89	DF159049-159096 DF159174-159215	Oyster Bay
25	37	9	46	DF159097-159099 DF159216-159234 DF159300-159323	Oyster Bay
26	55	15	70	DF159235-159271 DF159324-159356	Cape Mudge
27	102	14	116	DF159272-159299 DF159357-159431 DF159600-159613	Cape Mudge
28	121	9	130	DF159432-159499 DF159614-159675	Cape Mudge
29	19	5	24	DF159676-159686 DF159700-159712	Cape Mudge
30	145	6	151	DF159687-159699 DF159713-159789 DF159800-159862	Cape Mudge
31	124	6	130	DF159790-159799 DF159863-159956 DF160000-160025	Cape Mudge
32	65	22	87	DF159957-159999 DF160026-160063 DF160100-160106	Cape Mudge
33	92	15	107	DF160064-160099 DF160107-160168 DF160200-160209	Cape Mudge
34	82	2	84	DF160169-160199 DF160210-160246 DF160300-160315	Cape Mudge
35	145	2	147	DF160246-160299 DF160316-160375 DF160400-160433	Cape Mudge
36	9	51	60	DF160376-160399 DF160435-160461 DF160500-160509	Marina Is.
37	4	38	42	DF160462-160482 DF160510-160530	Marina Is.
Total	2,733	661	3,394		

Table 4. Summary of dogfish tagged in the Central Strait area, November 1981.

Set no.	Number tagged M	F	T	Modified Petersen disc tag no.	No. injected with OTC: inter-muscular	intra-peritoneal	Location of release
1	-	-	-	DF160484 to DF160749	-	-	Northumberland Channel and Departure Bay — sets combined
2	64	164	228		186	42	Entrance Is. to Northumberland Channel
3	48	51	99	DF160750-160848	39	60	Northumberland Channel
4	38	43	81	DF160849-160930	81	0	Entrance Is.
5	1	7	8	DF160931-160938	0	8	Northumberland Channel
6	17	33	50	DF160939-160996	0	50	Northumberland Channel
7	34	112	146	DF160997-161142	43	103	Colingwood Channel, Howe Sound — sets combined
8	-	-	-	DF161143 to DF161312	-	-	
9	116	51	167		67	100	Collingwood Channel and Gibson Ldg, Howe Sound — sets combined
10	-	-	-	DF161313 to DF161474	-	-	
11	118	44	162		162	0	Collingwood Channel and Gibsons Landing, Howe Sound — sets combined
12	-	-	-	DF161475	-	-	
13	-	-	-		-	-	
14	-	-	-	to	-	-	
15	-	-	-		-	-	
16	261	95	357*	DF161833	36	321	Collingwood Channel and Gibsons Landing, Howe Sound — sets combined
17	-	-	-	DF161834 to DF161995	-	-	
18	153	4	157		157	0	off Langdale, Howe Sound — sets combined
19	-	-	-	DF161996-161999 and	-	-	
20	37	83	120	DF8242000-8242116	120	0	off Langdale, Howe Sound
21	3	20	23	DF8242117-8242138	23	0	off Langdale, Howe Sound
22	5	32	37	DF8242139-8242177	37	0	Collingwood Channel and Gibsons Landing, Howe Sound — sets combined
23	-	-	-	DF8242178 to DF8242296	-	-	
24	100	17	117		117	0	off Langdale, Howe Sound
25	8	19	27	DF8242297-8242325	27	0	West Bay, Howe Sound
26	19	23	42	DF8242326-8242367	42	0	West Bay and Horseshoe Bay, Howe Sound — sets combined
27	-	-	-	DF8242368 to DF8242642	-	-	
28	81	191	272		272	0	Welcome Pass, N of Thormanby Is.
29	1	13	14	DF8242643-8242656	14	0	N of Thormanby Is.
30	1	13	14	DF8242657-8242670	14	0	N of Thormanby Is.
31	0	22	22	DF8242671-8242694	22	0	N of Thormanby Is.
32	0	15	15	DF8242696-8242711	15	0	

Table 4 (cont'd)

Set no.	Number tagged M	F	T	Modified Petersen disc tag no.	No. injected with OTC: inter-muscular	intra-peritoneal	Location of release
33	-	-	-	DF8242712 to	-	-	Bjerre Shoal - NW Thormanby Is. ┐ sets
34	0	45	45	DF8242757	45	0	┘ combined
35	9	64	73	DF8242758-8242834	73	0	Sinclair Bank, Malaspina Strait
36	0	10	10	DF8242835-8242845	9	0	Sinclair Bank, Malaspina Strait
37	5	27	32	DF8242846-8242879	32	0	Sinclair Bank, Malaspina Strait
38	0	45	45	DF8242880-8242926	45	0	Stillwater Bay, Malaspina Strait
39	0	65	65	DF8242927-8242983	65	0	Stillwater Bay, Malaspina Strait
40	1	45	46	DF8242994-8243040	46	0	Stillwater Bay, Malaspina Strait
41	-	-	-	DF8243041			Thunder Bay, Jervis Inlet ┐ sets
42	-	-	-	to			combined
43	-	-	-				┘
44	2	225	227	DF824368	227	0	
45	0	7	7	DF8243269-8243275	0	7	Thunder Bay, Jervis Inlet
46	0	7	7	DF8243276-8243282	6	0	Thunder Bay, Jervis Inlet
47	0	6	6	DF8243283-8243288	6	0	Thunder Bay, Jervis Inlet
48	-	-	-	DF8243289 to			NW of Hardy Is, Jervis Inlet ┐ sets
49	3	115	119*	DF8243407	11	108	┘ combined
50	1	53	54	DF8243408-8243463	0	54	Hardy Is., and Saltery Bay, Jervis Inlet
51	2	42	44	DF8243464-8243509	44	0	Hardy Is., Jervis Inlet
52	4	51	55	DF8243510-8243564	55	0	Hardy Is., Jervis Inlet
53	1	32	33	DF8243565-8243597	33	0	Hardy Is., Jervis Inlet
54	2	45	47	DF8243598-8243646	47	0	Hardy Is., Jervis Inlet
55	1	31	32	DF8243647-8243678	32	0	Hardy Is., Jervis Inlet
56	3	59	62	DF8243679-8243742	62	0	Hardy Is. and Saltery Bay, Jervis Inlet
57	12	113	125	DF8243743-8243868	125	0	off Cape Cockburn, Malaspina Strait
58	2	45	48*	DF8243869-8243917	48	0	off Cape Cockburn, Malaspina Strait
59	1	53	54	DF8243918-8243971	54	0	off Cape Cockburn, Malaspina Strait
60	4	48	52	DF8243972-8243023	52	0	off Cape Cockburn, Malaspina Strait
61	4	22	26	DF8244024-8244049	26	0	off Cape Cockburn, Malaspina Strait
62	-	-	-	DF8244050 to			Northumberland Channel ┐ sets
63	50	52	102	DF8244173	102	0	and Departure Bay ┘ combined
Total	1212	2359	3574		2719	853	

*One unsexed.

Table 5. Length frequency of tagged dogfisn by set in the Campbell River area, April-May 1981.

Total length	Set no. 1			2			3			4		
(cm)	M	F	T	M	F	T	M	F	T	M	F	T
46	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	1	-	1	-	-	-	-	-	-
1	-	-	-	0	-	0	-	-	-	-	-	-
2	-	-	-	0	-	0	-	-	-	-	-	-
3	-	1	1	0	-	0	-	-	-	-	-	-
4	-	0	0	0	-	0	-	-	-	-	-	-
5	-	0	0	0	-	0	-	-	-	-	-	-
6	-	0	0	0	-	0	-	-	-	-	-	-
7	-	0	0	0	-	0	-	-	-	-	-	-
8	-	0	0	0	-	0	-	-	-	-	-	-
9	-	3	3	1	1	2	-	1	1	-	-	-
60	1	0	1	0	1	1	-	0	0	-	1	1
1	0	1	1	0	0	0	-	0	0	-	0	0
2	0	0	0	1	1	2	-	0	0	-	0	0
3	0	1	1	0	0	0	-	0	0	-	0	0
4	2	1	3	0	1	1	-	0	0	-	0	0
5	0	1	1	0	1	1	-	0	0	-	0	0
6	0	0	0	0	0	0	-	0	0	-	0	0
7	1	1	2	1	0	1	-	0	0	-	0	0
8	0	1	1	0	0	0	-	0	0	-	0	0
9	1	2	3	0	1	1	-	0	0	-	0	0
70	1	0	1	0	0	0	-	0	0	1	0	1
1	1	1	2	0	0	0	-	0	0	3	0	3
2	1	0	1	1	0	1	2	1	3	0	0	0
3	7	1	8	0	0	0	1	0	1	0	0	0
4	4	0	4	2	0	2	1	0	1	4	0	4
5	2	0	2	0	0	0	2	0	2	10	0	10
6	2	1	3	4	0	4	3	0	3	5	0	5
7	4	0	4	3	0	3	4	0	4	3	0	3
8	6	2	8	7	0	7	8	0	8	12	0	12
9	4	0	4	3	1	4	7	0	7	13	0	13
80	9	0	9	6	0	6	15	0	15	15	0	15
1	6	1	7	8	0	8	9	0	9	13	0	13
2	8	0	8	6	1	7	15	0	15	12	1	13
3	9	0	9	7	0	7	10	0	10	14	2	16
4	7	0	7	5	0	5	14	0	14	8	1	9
5	3	0	3	5	0	5	13	0	13	8	0	8
6	6	0	6	2	0	2	10	0	10	6	0	6
7	3	0	3	4	0	4	4	0	4	6	0	6
8	2	0	2	1	0	1	10	0	10	5	0	5
9	1	0	1	2	0	2	8	0	8	1	0	1

Table 5 (cont'd)

Total length (cm)	Set no. 1			2			3			4		
	M	F	T	M	F	T	M	F	T	M	F	T
90	2	0	2	0	0	0	6	0	6	2	0	2
1	-	0	0	1	0	1	2	0	2	1	0	1
2	-	0	0	0	2	2	2	0	2	1	0	1
3	-	0	0	1	0	1	1	0	1	-	0	0
4	-	1	1	-	0	0	0	0	0	-	0	0
5	-	0	0	-	0	0	0	0	0	-	0	0
6	-	0	0	-	0	0	1	1	2	-	0	0
7	-	0	0	-	0	0	0	0	0	-	0	0
8	-	0	0	-	2	2	1	0	1	-	0	0
9	-	0	0	-	0	0	-	0	0	-	0	0
100	-	0	0	-	0	0	-	0	0	-	0	0
1	-	1	1	-	1	1	-	0	0	-	0	0
2	-	0	0	-	0	0	-	0	0	-	0	0
3	-	0	0	-	0	0	-	0	0	-	0	0
4	-	0	0	-	1	1	-	0	0	-	0	0
5	-	1	1	-	1	1	-	0	0	-	1	1
6	-	2	2	-	1	1	-	0	0	-	0	0
7	-	0	0	-	2	2	-	0	0	-	1	1
8	-	1	1	-	2	2	-	0	0	-	0	0
9	-	0	0	-	0	0	-	1	1	-	0	0
110	-	1	1	-	0	0	-	-	-	-	0	0
11	-	1	1	-	0	0	-	-	-	-	1	1
12	-	1	1	-	0	0	-	-	-	-	1	1
13	-	0	0	-	1	1	-	-	-	-	-	-
14	-	0	0	-	0	0	-	-	-	-	-	-
15	-	1	1	-	1	1	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	93	28	121	72	22	94	149	4	153	143	9	152

Table 5 (cont'd)

Total length (cm)	Set no. 5 M	5 F	5 T	6 M	6 F	6 T	7 M	7 F	7 T	8 M	8 F	8 T
46	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	1	-	1	-	-	-	-	-	-
2	-	-	-	0	1	1	-	-	-	-	-	-
3	-	-	-	1	1	2	-	-	-	-	-	-
4	-	-	-	2	0	2	1	-	1	-	-	-
5	-	-	-	2	1	3	0	-	0	-	-	-
6	-	-	-	0	3	3	0	-	0	-	-	-
7	-	-	-	1	1	2	0	-	0	-	-	-
8	-	-	-	3	1	4	0	-	0	-	-	-
9	-	-	-	2	1	3	0	-	0	-	-	-
60	-	-	-	5	1	6	0	1	1	-	-	-
1	-	-	-	4	5	9	0	1	1	-	-	-
2	-	-	-	5	1	6	0	0	0	-	-	-
3	-	-	-	5	1	6	1	0	1	-	-	-
4	-	-	-	3	3	6	0	0	0	-	-	-
5	-	-	-	5	2	7	1	1	2	-	-	-
6	-	-	-	3	2	5	0	0	0	-	-	-
7	-	-	-	5	3	8	0	0	0	-	-	-
8	-	-	-	7	3	10	1	1	2	-	-	-
9	-	-	-	2	0	2	0	2	2	-	-	-
70	1	1	2	0	0	0	3	1	4	-	-	-
1	0	0	0	4	0	4	0	2	2	-	-	-
2	0	0	0	2	0	2	0	0	0	-	-	-
3	3	0	3	1	0	1	3	0	3	-	-	-
4	1	1	2	1	0	1	2	2	4	-	-	-
5	7	1	8	1	0	1	2	1	3	-	-	-
6	4	0	4	3	0	3	2	1	3	-	-	-
7	5	0	5	2	0	2	5	1	6	-	-	-
8	9	0	9	1	0	1	4	0	4	-	-	-
9	4	1	5	2	0	2	0	0	0	-	-	-
80	9	0	9	1	0	1	5	0	5	2	-	2
1	7	0	7	0	0	0	6	0	6	0	-	0
2	10	0	10	3	0	3	1	1	2	0	-	0
3	11	0	11	1	0	1	6	0	6	1	-	1
4	4	0	4	2	0	2	6	1	7	1	-	1
5	5	1	6	0	0	0	3	0	3	1	-	1
6	1	0	1	1	0	1	3	1	4	1	-	1
7	6	0	6	1	0	1	4	0	4	-	-	0
8	5	0	5	0	0	0	3	0	3	-	-	0
9	5	2	7	0	1	1	1	0	1	-	-	0

Table 5 (cont'd)

Total length (cm)	Set no. 5 M	5 F	5 T	6 M	6 F	6 T	7 M	7 F	7 T	8 M	8 F	8 T
90	1	0	1	1	-	1	0	2	2	-	-	0
1	1	1	2	-	-	-	0	0	0	-	-	0
2	0	0	0	-	-	-	1	0	1	-	-	0
3	0	0	0	-	-	-	1	1	2	-	-	0
4	2	0	2	-	-	-	-	0	0	-	-	0
5	0	0	0	-	-	-	-	0	0	-	1	1
6	1	0	1	-	-	-	-	0	0	-	1	1
7	-	0	0	-	-	-	-	1	1	-	0	0
8	-	0	0	-	-	-	-	0	0	-	0	0
9	-	3	3	-	-	-	-	0	0	-	1	1
100	-	0	0	-	-	-	-	1	1	-	1	1
1	-	1	1	-	-	-	-	0	0	-	2	2
2	-	-	-	-	-	-	-	1	1	-	0	0
3	-	-	-	-	-	-	-	2	2	-	0	0
4	-	-	-	-	-	-	-	1	1	-	0	0
5	-	-	-	-	-	-	-	0	0	-	1	1
6	-	-	-	-	-	-	-	3	3	-	0	0
7	-	-	-	-	-	-	-	0	0	-	0	0
8	-	-	-	-	-	-	-	0	0	-	1	1
9	-	-	-	-	-	-	-	1	1	-	2	2
110	-	-	-	-	-	-	-	0	0	-	0	0
11	-	-	-	-	-	-	-	2	2	-	0	0
12	-	-	-	-	-	-	-	-	-	-	0	0
13	-	-	-	-	-	-	-	-	-	-	1	1
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	102	12	114	83	31	114	65	32	97	6	11	17

Table 5 (cont'd)

Total length (cm)	Set no. 9 M	9 F	9 T	10 M	10 F	10 T	11 M	11 F	11 T	12 M	12 F	12 T
46	-	-	-	1	-	1	-	-	-	-	-	-
7	-	-	-	0	-	0	-	-	-	-	-	-
8	-	-	-	0	1	1	-	-	-	-	-	-
9	-	1	1	0	0	0	-	-	-	-	-	-
50	1	0	1	0	0	0	-	-	-	-	-	-
1	1	0	1	0	0	0	-	-	-	-	-	-
2	1	0	1	0	0	0	-	-	-	-	-	-
3	1	0	1	3	0	3	-	-	-	-	-	-
4	0	4	4	0	0	0	-	-	-	-	-	-
5	0	1	1	1	0	1	-	-	-	-	-	-
6	3	2	5	0	1	1	-	-	-	-	-	-
7	5	2	7	0	1	1	-	-	-	-	-	-
8	2	3	5	0	0	0	-	-	-	-	-	-
9	4	2	6	1	0	1	-	-	-	-	-	-
60	3	3	6	1	0	1	-	-	-	-	-	-
1	3	1	4	0	0	0	-	-	-	-	-	-
2	4	2	6	2	0	2	-	-	-	-	-	-
3	4	4	8	0	1	1	-	-	-	-	-	-
4	3	1	4	2	0	2	-	-	-	-	-	-
5	3	2	5	1	3	4	-	-	-	-	-	-
6	6	2	8	0	0	0	-	-	-	-	-	-
7	6	0	6	2	0	2	-	-	-	-	-	-
8	5	0	5	1	0	1	-	-	-	4	-	4
9	0	0	0	0	1	1	-	-	-	0	-	0
70	2	0	2	5	0	5	-	1	1	2	-	2
1	2	1	3	5	1	6	-	0	0	6	-	6
2	3	0	3	4	1	5	-	0	0	2	-	2
3	1	0	1	4	1	5	-	0	0	1	1	2
4	1	0	1	4	2	6	-	0	0	5	1	6
5	2	1	3	7	1	8	-	0	0	5	0	5
6	1	0	1	6	0	6	-	0	0	12	1	13
7	1	1	2	3	0	3	-	0	0	5	-	5
8	0	0	0	11	0	11	-	0	0	8	-	8
9	0	0	0	5	0	5	-	0	0	4	-	4
80	1	0	1	7	1	8	-	0	0	10	-	10
1	1	0	1	4	0	4	-	0	0	6	-	6
2	1	0	1	4	1	5	-	0	0	3	-	3
3	1	0	1	3	0	3	-	0	0	4	-	4
4	-	0	0	5	1	6	-	0	0	2	-	2
5	-	0	0	2	0	2	-	0	0	2	-	2
6	-	0	0	1	1	2	-	0	0	3	-	3
7	-	0	0	4	0	4	-	0	0	1	-	1
8	-	0	0	2	1	3	-	1	1	1	-	1
9	-	0	0	0	0	0	-	0	0	2	-	2

Table 5 (cont'd)

Total length (cm)	Set no. 9 M	9 F	9 T	10 M	10 F	10 T	11 M	11 F	11 T	12 M	12 F	12 T
90	-	1	1	3	0	3	1	1	2	1	-	1
1	-	0	0	-	0	0	-	1	1	-	-	-
2	-	0	0	-	0	0	-	1	1	-	-	-
3	-	0	0	-	0	0	-	1	1	-	-	-
4	-	0	0	-	0	0	-	1	1	-	-	-
5	-	0	0	-	0	0	-	0	0	-	-	-
6	-	0	0	-	0	0	-	2	2	-	-	-
7	-	0	0	-	0	0	-	0	0	-	-	-
8	-	0	0	-	0	0	-	0	0	-	-	-
9	-	0	0	-	0	0	-	1	1	-	-	-
100	-	0	0	-	0	0	-	1	1	-	-	-
1	-	0	0	-	0	0	-	0	0	-	-	-
2	-	1	1	-	0	0	-	0	0	-	-	-
3	-	0	0	-	1	1	-	1	1	-	-	-
4	-	0	0	-	0	0	-	2	2	-	-	-
5	-	0	0	-	0	0	-	1	1	-	-	-
6	-	1	1	-	0	0	-	0	0	-	-	-
7	-	0	0	-	1	1	-	1	1	-	-	-
8	-	0	0	-	-	-	-	1	1	-	-	-
9	-	0	0	-	-	-	-	1	1	-	-	-
110	-	1	1	-	-	-	-	2	2	-	-	-
11	-	-	-	-	-	-	-	0	0	-	-	-
12	-	-	-	-	-	-	-	2	2	-	-	-
13	-	-	-	-	-	-	-	1	1	-	-	-
14	-	-	-	-	-	-	-	0	0	-	-	-
15	-	-	-	-	-	-	-	0	0	-	-	-
16	-	-	-	-	-	-	-	0	0	-	-	-
17	-	-	-	-	-	-	-	0	0	-	-	-
19	-	-	-	-	-	-	-	1	1	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	72	37	109	104	21	125	1	24	25	89	3	92

Table 5 (cont'd)

Total length (cm)	Set no. 13 M	13 F	13 T	14 M	14 F	14 T	15 M	15 F	15 T	16 M	16 F	16 T
46	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	1	1	-	-	-	-	-	-	-	-	-
50	-	0	0	-	-	-	-	-	-	-	-	-
1	-	0	0	-	-	-	-	-	-	-	-	-
2	-	2	2	-	-	-	-	-	-	-	-	-
3	1	1	2	-	-	-	-	-	-	1	-	1
4	1	1	2	-	-	-	-	-	-	1	1	2
5	0	0	0	-	-	-	-	-	-	0	0	0
6	1	1	2	-	-	-	-	-	-	2	3	5
7	2	3	5	-	-	-	-	-	-	2	0	2
8	0	2	2	-	-	-	-	-	-	5	5	10
9	0	0	0	-	-	-	-	-	-	4	1	5
60	1	0	1	-	-	-	-	-	-	9	2	11
1	3	3	6	-	-	-	-	-	-	3	1	4
2	4	1	5	-	-	-	-	-	-	7	1	8
3	5	1	6	-	-	-	-		-	4	4	8
4	2	1	3	-	1	1	-	-	-	6	1	7
5	0	2	2	-	0	0	-	-	-	5	1	6
6	1	1	2	1	0	1	-	1	1	7	2	9
7	1	1	2	0	0	0	-	1	1	1	4	5
8	2	0	2	0	0	0	-	0	0	3	2	5
9	4	1	5	0	0	0	-	0	0	7	2	9
70	1	1	2	0	0	0	-	0	0	3	0	3
1	3	0	3	0	0	0	-	0	0	4	2	6
2	0	1	1	0	0	0	-	0	0	3	0	3
3	1	1	2	0	0	0	-	0	0	1	0	1
4	0	0	0	0	0	0	-	0	0	2	0	2
5	2	0	2	0	0	0	1	0	1	3	0	3
6	2	0	3	0	0	0	0	1	1	4	0	4
7	3	1	4	0	0	0	0	0	0	2	0	2
8	2	-	2	0	0	0	0	0	0	1	0	1
9	0	-	0	-	-	-	1	1	2	3	0	3
80	1	-	1	0	0	0	2	0	2	2	0	2
1	2	-	2	0	0	0	0	0	0	1	0	1
2	0	-	0	0	1	1	1	0	1	1	0	1
3	0	-	0	1	0	1	0	0	0	0	0	0
4	0	-	0	-	1	1	1	0	1	1	0	1
5	1	-	1	-	0	0	0	1	1	1	0	1
6	0	-	0	-	1	1	0	0	0	1	0	1
7	0	-	0	-	0	0	0	0	0	0	0	0
8	1	-	1	-	1	1	0	0	0	0	1	1
9	1	-	1	-	0	0	0	0	0	1	0	1

Table 5 (cont'd)

Total length (cm)	Set no. 13 M	13 F	13 T	14 M	14 F	14 T	15 M	15 F	15 T	16 M	16 F	16 T
90	-	0	0	-	2	2	0	1	1	0	0	0
1	-	0	0	-	1	1	0	0	0	0	0	0
2	-	2	2	-	0	0	0	0	0	0	0	0
3	-	0	0	-	0	0	1	0	1	1	0	1
4	-	1	1	-	0	0	-	2	2	-	0	0
5	-	0	0	-	0	0	-	3	3	-	0	0
6	-	0	0	-	0	0	-	1	1	-	0	0
7	-	0	0	-	1	1	-	0	0	-	0	0
8	-	0	0	-	1	1	-	0	0	-	0	0
9	-	0	0	-	0	0	-	1	1	-	0	0
100	-	1	1	-	2	2	-	1	1	-	0	0
1	-	0	0	-	0	0	-	0	0	-	1	1
2	-	1	1	-	1	1	-	0	0	-	0	0
3	-	0	0	-	0	0	-	0	0	-	0	0
4	-	1	1	-	0	0	-	0	0	-	0	0
5	-	0	0	-	0	0	-	0	0	-	0	0
6	-	0	0	-	0	0	-	0	0	-	0	0
7	-	1	1	-	0	0	-	1	1	-	0	0
8	-	-	-	-	1	1	-	0	0	-	1	1
9	-	-	-	-	0	0	-	0	0	-	0	0
110	-	-	-	-	0	0	-	0	0	-	1	1
11	-	-	-	-	0	0	-	0	0	-	-	-
12	-	-	-	-	0	0	-	0	0	-	-	-
13	-	-	-	-	0	0	-	1	1	-	-	-
14	-	-	-	-	0	0	-	-	-	-	-	-
15	-	-	-	-	0	0	-	-	-	-	-	-
16	-	-	-	-	1	1	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	48	34	82	2	15	17	7	16	23	102	36	138

Table 5 (cont'd)

Total length	Set no. 17			18			19			20		
(cm)	M	F	T	M	F	T	M	F	T	M	F	T
46	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	1	1
50	-	-	-	-	-	-	-	-	-	-	0	0
1	-	-	-	-	-	-	-	-	-	-	0	0
2	-	-	-	-	-	-	-	-	-	-	0	0
3	-	-	-	-	-	-	-	-	-	-	0	0
4	-	-	-	-	-	-	-	-	-	-	0	0
5	-	-	-	-	-	-	-	-	-	2	1	3
6	-	-	-	-	-	-	-	1	1	0	0	0
7	-	-	-	1	-	1	1	0	1	1	2	3
8	-	-	-	0	-	0	0	0	0	0	2	2
9	-	-	-	0	-	0	0	0	0	0	0	0
60	-	-	-	0	1	1	0	0	0	0	1	1
1	-	-	-	0	0	0	0	0	0	3	1	4
2	-	-	-	0	1	1	1	0	1	2	2	4
3	-	-	-	0	0	0	2	0	2	2	2	4
4	-	-	-	0	0	0	1	0	1	2	3	5
5	-	-	-	1	0	1	1	1	2	0	1	1
6	-	-	-	0	0	0	0	0	0	2	1	3
7	-	-	-	0	0	0	1	2	3	1	2	3
8	-	-	-	0	0	0	0	0	0	5	0	5
9	1	-	1	2	0	2	2	1	3	1	1	2
70	0	-	0	0	0	0	2	0	2	2	1	3
1	1	-	1	1	0	1	2	0	2	1	0	1
2	1	-	1	1	0	1	3	1	4	3	0	3
3	3	-	3	5	0	5	6	0	6	2	2	4
4	3	-	3	1	0	1	4	0	4	7	0	7
5	3	-	3	3	0	3	8	0	8	3	0	3
6	4	-	4	4	0	4	11	0	11	7	1	8
7	1	-	1	6	1	7	7	0	7	2	0	2
8	8	-	8	2	1	3	13	1	14	5	0	5
9	11	-	11	6	0	6	12	0	12	3	0	3
80	12	-	12	6	0	6	8	0	8	1	0	1
1	6	-	6	7	0	7	6	1	7	2	0	2
2	15	-	15	8	0	8	9	0	9	1	0	1
3	9	-	9	8	0	8	9	0	9	1	0	1
4	5	1	6	5	1	6	11	0	11	3	0	3
5	5	0	5	4	0	4	3	1	4	0	0	0
6	3	0	3	6	0	6	3	0	3	1	0	1
7	5	2	7	2	0	2	2	0	2	2	0	2
8	4	0	4	3	0	3	5	0	5	0	0	0
9	2	1	3	1	0	1	4	0	4	1	0	1

Table 5 (cont'd)

Total length	Set no. 17			18			19			20		
(cm)	M	F	T	M	F	T	M	F	T	M	F	T
90	0	0	0	1	0	1	1	0	1	-	0	0
1	2	0	2	0	0	0	0	0	0	-	0	0
2	0	0	0	0	0	0	1	0	1	-	0	0
3	1	0	1	2	0	2	1	0	1	-	0	0
4	1	0	1	-	1	1	-	0	0	-	0	0
5	1	0	1	-	0	0	-	1	1	-	0	0
6	-	0	0	-	1	1	-	0	0	-	0	0
7	-	0	0	-	0	0	-	0	0	-	0	0
8	-	0	0	-	1	1	-	0	0	-	0	0
9	-	0	0	-	0	0	-	0	0	-	0	0
100	-	1	1	-	2	2	-	0	0	-	0	0
1	-	0	0	-	0	0	-	0	0	-	0	0
2	-	1	1	-	0	0	-	0	0	-	0	0
3	-	1	1	-	0	0	-	0	0	-	1	1
4	-	2	2	-	2	2	-	0	0	-	0	0
5	-	2	2	-	0	0	-	1	1	-	0	0
6	-	1	1	-	0	0	-	-	-	-	0	0
7	-	0	0	-	0	0	-	-	-	-	1	1
8	-	0	0	-	0	0	-	-	-	-	-	-
9	-	1	1	-	0	0	-	-	-	-	-	-
110	-	0	0	-	0	0	-	-	-	-	-	-
11	-	0	0	-	0	0	-	-	-	-	-	-
12	-	1	1	-	0	0	-	-	-	-	-	-
13	-	-	-	-	1	1	-	-	-	-	-	-
14	-	-	-	-	0	0	-	-	-	-	-	-
15	-	-	-	-	0	0	-	-	-	-	-	-
16	-	-	-	-	0	0	-	-	-	-	-	-
17	-	-	-	-	0	0	-	-	-	-	-	-
18	-	-	-	-	0	0	-	-	-	-	-	-
19	-	-	-	-	0	0	-	-	-	-	-	-
120	-	-	-	-	1	1	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	107	14	121	86	14	100	140	11	151	68	26	94

Table 5 (cont'd)

Total length (cm)	Set no. 21 M	21 F	21 T	22 M	22 F	22 T	23 M	23 F	23 T	24 M	24 F	24 T
46	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	1	1	2	-	-	-
50	-	-	-	-	-	-	0	0	0	-	1	1
1	-	-	-	-	-	-	0	0	0	-	1	1
2	-	-	-	-	-	-	0	0	0	1	0	1
3	1	-	1	-	-	-	0	0	0	0	0	0
4	0	-	0	1	-	1	0	0	0	0	1	1
5	1	1	2	0	1	1	0	0	0	1	0	1
6	0	0	0	0	0	0	0	1	1	2	0	2
7	0	0	0	0	0	0	0	0	0	2	0	2
8	1	2	3	0	1	1	0	1	1	0	0	0
9	2	1	3	0	0	0	0	1	1	1	0	1
60	2	0	2	0	0	0	0	0	0	2	0	2
1	1	1	2	1	0	1	1	0	1	3	1	4
2	1	0	1	0	0	0	2	0	2	5	0	5
3	0	0	0	0	0	0	1	0	1	1	0	1
4	0	0	0	0	0	0	1	1	2	2	2	4
5	1	0	1	0	0	0	2	2	4	4	2	6
6	0	0	0	0	0	0	0	0	0	2	0	2
7	2	1	3	0	0	0	1	0	1	0	2	2
8	0	0	0	0	0	0	0	1	1	3	1	4
9	2	0	2	0	0	0	3	0	3	3	0	3
70	1	0	1	1	0	1	1	0	1	0	0	0
1	3	0	3	2	0	2	1	1	2	1	0	1
2	2	0	2	1	0	1	3	0	3	1	0	1
3	4	0	4	1	0	1	3	0	3	3	0	3
4	0	0	0	0	0	0	6	0	6	1	0	1
5	1	0	1	0	0	0	5	0	5	3	0	3
6	0	1	1	1	1	2	2	1	3	1	1	2
7	2	0	2	0	0	0	2	0	2	4	0	4
8	2	0	2	0	0	0	2	0	2	4	1	5
9	2	0	2	0	0	0	3	0	3	2	0	2
80	6	0	6	0	0	0	4	0	4	2	0	2
1	2	0	2	1	0	1	5	1	6	4	0	4
2	1	0	1	1	1	2	2	0	2	3	0	3
3	3	0	3	1	0	1	1	0	1	0	0	0
4	3	0	3	0	0	0	1	0	1	2	1	3
5	2	0	2	0	0	0	2	0	2	3	1	4
6	2	0	2	0	0	0	2	0	2	3	0	3
7	1	0	1	1	0	1	1	0	1	-	0	0
8	1	0	1	0	0	0	0	0	0	-	0	0
9	0	0	0	0	0	0	1	0	1	-	0	0

Table 5 (cont'd)

Total length (cm)	Set no. 21 M	21 F	21 T	22 M	22 F	22 T	23 M	23 F	23 T	24 M	24 F	24 T
90	0	0	0	-	0	0	-	0	0	-	0	0
1	1	0	1	-	0	0	-	0	0	-	0	0
2	1	0	1	-	0	0	-	0	0	-	0	0
3	-	0	0	-	0	0	-	0	0	-	0	0
4	-	0	0	-	0	0	-	0	0	-	1	1
5	-	0	0	-	0	0	-	0	0	-	0	0
6	-	0	0	-	0	0	-	0	0	-	0	0
7	-	0	0	-	0	0	-	1	1	-	0	0
8	-	0	0	-	0	0	-	0	0	-	0	0
9	-	0	0	-	1	1	-	0	0	-	2	2
100	-	0	0	-	0	0	-	0	0	-	0	0
1	-	0	0	-	1	1	-	0	0	-	0	0
2	-	2	2	-	1	1	-	0	0	-	1	1
3	-	0	0	-	1	1	-	1	1	-	0	0
4	-	2	2	-	0	0	-	1	1	-	0	0
5	-	0	0	-	3	3	-	0	0	-	0	0
6	-	1	1	-	1	1	-	1	1	-	0	0
7	-	2	2	-	0	0	-	0	0	-	0	0
8	-	0	0	-	1	1	-	1	1	-	0	0
9	-	0	0	-	1	1	-	1	1	-	1	1
110	-	0	0	-	-	-	-	0	0	-	-	-
11	-	0	0	-	-	-	-	0	0	-	-	-
12	-	0	0	-	-	-	-	0	0	-	-	-
13	-	0	0	-	-	-	-	0	0	-	-	-
14	-	0	0	-	-	-	-	0	0	-	-	-
15	-	0	0	-	-	-	-	0	0	-	-	-
16	-	0	0	-	-	-	-	0	0	-	-	-
17	-	0	0	-	-	-	-	1	1	-	-	-
18	-	1	1	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	54	15	69	12	14	26	59	18	77	69	20	89

Table 5 (cont'd)

Total length (cm)	Set no. 25 M	25 F	25 T	26 M	26 F	26 T	27 M	27 F	27 T	28 M	28 F	28 T
46	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	1	1	2	-	-	-	-	-	-	-	-	-
50	0	0	0	1	-	1	-	-	-	-	-	-
1	0	0	0	1	-	1	-	-	-	-	-	-
2	1	0	1	0	-	0	-	-	-	-	-	-
3	0	0	0	1	-	1	-	-	-	-	-	-
4	0	0	0	0	-	0	-	-	-	-	-	-
5	1	0	1	0	-	0	-	-	-	-	-	-
6	1	0	1	0	-	0	-	-	-	-	-	-
7	0	0	0	1	-	1	-	-	-	-	-	-
8	0	0	0	2	-	2	-	-	-	-	-	-
9	0	0	0	1	-	1	-	-	-	-	-	-
60	1	0	1	0	-	0	-	-	-	-	-	-
1	5	1	6	1	-	1	1	-	1	-	-	-
2	1	0	1	0	1	1	0	-	0	-	-	-
3	1	0	1	1	1	2	0	-	0	-	-	-
4	2	1	3	0	1	1	0	-	0	-	-	-
5	0	1	1	0	0	0	0	1	1	-	-	-
6	1	0	1	3	0	3	0	2	2	-	-	-
7	1	0	1	0	1	1	2	0	2	-	-	-
8	1	0	1	0	0	0	4	1	5	-	-	-
9	2	0	2	2	2	4	5	0	5	1	-	1
70	1	0	1	3	0	3	5	0	5	1	-	1
1	1	0	1	1	1	2	7	2	9	3	-	3
2	3	0	3	1	1	2	5	0	5	2	2	4
3	0	0	0	2	0	2	4	1	5	2	0	2
4	1	0	1	2	1	3	6	1	7	6	1	7
5	3	1	4	1	0	1	8	0	8	6	0	6
6	1	0	1	3	0	3	10	0	10	9	0	9
7	0	0	0	3	1	4	5	0	5	9	0	9
8	2	0	2	1	1	2	7	2	9	13	0	13
9	1	2	3	2	0	2	7	0	7	12	0	12
80	1	0	1	3	0	3	9	0	9	13	1	14
1	1	0	1	1	0	1	2	1	3	12	0	12
2	1	0	1	5	0	5	3	0	3	7	0	7
3	1	0	1	4	0	4	4	0	4	8	0	8
4	0	0	0	0	0	0	2	0	2	2	0	2
5	1	0	1	2	0	2	3	0	3	5	0	5
6	-	0	0	2	0	2	2	0	2	5	0	5
7	-	0	0	1	0	1	1	0	1	2	0	2
8	-	0	0	2	0	2	0	0	0	0	0	0
9	-	0	0	0	0	0	0	0	0	0	0	0

Table 5 (cont'd)

Total length (cm)	Set no. 25 M	25 F	25 T	26 M	26 F	26 T	27 M	27 F	27 T	28 M	28 F	28 T
90	-	0	0	0	0	0	-	0	0	1	0	1
1	-	0	0	0	0	0	-	0	0	1	0	1
2	-	0	0	1	0	1	-	0	0	1	1	2
3	-	0	0	1	0	1	-	0	0	-	0	0
4	-	0	0	-	0	0	-	0	0	-	1	1
5	-	0	0	-	0	0	-	0	0	-	0	0
6	-	0	0	-	0	0	-	0	0	-	0	0
7	-	1	1	-	0	0	-	0	0	-	0	0
8	-	0	0	-	0	0	-	0	0	-	0	0
9	-	0	0	-	1	1	-	0	0	-	2	2
100	-	0	0	-	0	0	-	0	0	-	0	0
1	-	1	1	-	0	0	-	0	0	-	0	0
2	-	-	-	-	0	0	-	0	0	-	0	0
3	-	-	-	-	0	0	-	2	2	-	1	1
4	-	-	-	-	0	0	-	0	0	-	-	-
5	-	-	-	-	0	0	-	0	0	-	-	-
6	-	-	-	-	0	0	-	1	1	-	-	-
7	-	-	-	-	1	1	-	-	-	-	-	-
8	-	-	-	-	0	0	-	-	-	-	-	-
9	-	-	-	-	0	0	-	-	-	-	-	-
110	-	-	-	-	0	0	-	-	-	-	-	-
11	-	-	-	-	0	0	-	-	-	-	-	-
12	-	-	-	-	1	1	-	-	-	-	-	-
13	-	-	-	-	0	0	-	-	-	-	-	-
14	-	-	-	-	1	1	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	37	9	46	55	15	70	102	14	116	121	9	130

Table 5 (cont'd)

Total length (cm)	Set no. 29 M	29 F	29 T	30 M	30 F	30 T	31 M	31 F	31 T	32 M	32 F	32 T
46	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	1	1	2
4	-	-	-	-	-	-	-	-	-	2	0	2
5	-	-	-	-	-	-	-	-	-	2	2	4
6	-	-	-	-	-	-	-	-	-	0	1	1
7	-	-	-	-	-	-	-	-	-	2	0	2
8	-	-	-	-	-	-	-	-	-	1	0	1
9	-	-	-	-	-	-	-	-	-	0	3	3
60	-	-	-	-	-	-	-	-	-	1	1	2
1	-	-	-	-	-	-	-	-	-	0	2	2
2	-	-	-	1	-	1	-	-	-	1	0	1
3	-	-	-	0	-	0	-	-	-	2	0	2
4	-	-	-	0	-	0	-	-	-	0	2	2
5	-	-	-	0	2	2	-	-	-	1	1	2
6	-	-	-	0	0	0	-	-	-	1	1	2
7	-	-	-	1	0	1	-	-	-	2	0	2
8	-	-	-	1	0	1	-	-	-	2	2	4
9	-	-	-	1	1	2	-	-	-	1	0	1
70	-	-	-	1	1	2	-	-	-	2	0	2
1	-	-	-	2	0	2	1	-	1	4	0	4
2	-	-	-	4	0	4	2	1	3	2	0	2
3	-	-	-	7	0	7	1	0	1	2	0	2
4	-	-	-	5	0	5	4	0	4	2	0	2
5	-	-	-	9	0	9	8	0	8	0	1	1
6	-	-	-	9	0	9	8	0	8	4	1	5
7	-	-	-	12	0	12	7	0	7	3	0	3
8	-	-	-	10	0	10	5	0	5	1	0	1
9	-	-	-	12	0	12	11	0	11	3	0	3
80	-	-	-	9	0	9	14	0	14	2	0	2
1	-	-	-	10	0	10	10	0	10	3	0	3
2	-	-	-	7	0	7	6	1	7	2	0	2
3	4	-	4	9	0	9	10	0	10	4	0	4
4	2	-	2	8	0	8	16	0	16	2	0	2
5	1	-	1	14	0	14	5	0	5	3	0	3
6	1	-	1	5	0	5	3	1	4	1	0	1
7	1	-	1	1	0	1	5	0	5	3	0	3
8	2	-	2	1	0	1	3	0	3	1	0	1
9	1	-	1	2	0	2	2	0	2	1	0	1

Table 5 (cont'd)

Total length (cm)	Set no. 29 M	29 F	29 T	30 M	30 F	30 T	31 M	31 F	31 T	32 M	32 F	32 T
90	3	1	4	2	0	2	2	0	2	0	0	0
1	2	0	2	0	0	0	0	0	0	0	1	1
2	0	1	1	0	0	0	0	0	0	1	0	1
3	2	0	2	1	0	1	0	0	0	-	0	0
4	-	0	0	0	0	0	0	0	0	-	0	0
5	-	0	0	0	0	0	0	0	0	-	0	0
6	-	1	1	0	0	0	1	0	1	-	0	0
7	-	0	0	0	0	0	-	0	0	-	1	1
8	-	0	0	0	1	1	-	0	0	-	1	1
9	-	0	0	0	0	0	-	0	0	-	1	1
100	-	1	1	0	0	0	-	0	0	-	-	-
1	-	0	0	0	0	0	-	0	0	-	-	-
2	-	0	0	0	0	0	-	1	1	-	-	-
3	-	0	0	0	0	0	-	0	0	-	-	-
4	-	0	0	0	0	0	-	0	0	-	-	-
5	-	1	1	0	1	1	-	0	0	-	-	-
6	-	-	-	0	-	0	-	0	0	-	-	-
7	-	-	-	0	-	0	-	0	0	-	-	-
8	-	-	-	0	-	0	-	1	1	-	-	-
9	-	-	-	0	-	0	-	1	1	-	-	-
110	-	-	-	0	-	0	-	-	-	-	-	-
11	-	-	-	0	-	0	-	-	-	-	-	-
12	-	-	-	0	-	0	-	-	-	-	-	-
13	-	-	-	0	-	0	-	-	-	-	-	-
14	-	-	-	0	-	0	-	-	-	-	-	-
15	-	-	-	0	-	0	-	-	-	-	-	-
16	-	-	-	0	-	0	-	-	-	-	-	-
17	-	-	-	0	-	0	-	-	-	-	-	-
18	-	-	-	0	-	0	-	-	-	-	-	-
19	-	-	-	0	-	0	-	-	-	-	-	-
120	-	-	-	0	-	0	-	-	-	-	-	-
Unkn	-	-	-	1	-	1	-	-	-	-	-	-
Total	19	5	24	145	6	151	124	6	130	65	22	87

Table 5 (cont'd)

Total length (cm)	Set no. 33 M	33 F	33 T	34 M	34 F	34 T	35 M	35 F	35 T	36 M	36 F	36 T
46	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	1	1
1	-	-	-	-	-	-	-	-	-	-	0	0
2	-	-	-	-	-	-	-	-	-	-	0	0
3	-	-	-	-	-	-	-	-	-	-	0	0
4	-	-	-	-	-	-	-	-	-	-	0	0
5	-	-	-	-	-	-	-	-	-	-	0	0
6	-	-	-	-	-	-	-	-	-	-	2	2
7	-	-	-	-	-	-	-	-	-	-	0	0
8	-	-	-	-	-	-	-	-	-	-	1	1
9	-	-	-	-	-	-	-	-	-	-	1	1
60	1	-	1	-	-	-	-	-	-	-	0	0
1	0	-	0	-	-	-	-	-	-	-	0	0
2	0	-	0	-	-	-	-	-	-	1	0	1
3	0	1	1	-	-	-	-	-	-	0	0	0
4	0	0	0	-	-	-	-	-	-	0	0	0
5	0	0	0	-	-	-	-	-	-	0	0	0
6	0	0	0	-	-	-	-	-	-	0	0	0
7	0	0	0	-	-	-	-	-	-	0	0	0
8	1	1	2	1	-	1	-	-	-	0	0	0
9	1	0	1	0	-	0	-	-	-	0	0	0
70	0	1	1	0	-	0	1	-	1	0	0	0
1	3	0	3	2	-	2	1	-	1	1	0	1
2	4	0	4	1	-	1	1	-	1	2	0	2
3	1	0	1	2	-	2	2	-	2	0	0	0
4	6	1	7	6	-	6	4	-	4	0	0	0
5	5	0	5	5	-	5	3	-	3	0	0	0
6	9	0	9	7	-	7	7	-	7	1	0	1
7	8	1	9	8	-	8	3	-	3	1	0	1
8	3	0	3	6	-	6	11	-	11	0	0	0
9	4	0	4	8	-	8	9	-	9	1	1	2
80	9	0	9	5	-	5	16	-	16	0	1	1
1	6	0	6	8	-	8	14	-	14	1	1	2
2	5	1	6	4	1	5	15	-	15	0	0	0
3	11	0	11	3	0	3	20	-	20	0	0	0
4	4	1	5	2	0	2	9	1	10	0	2	2
5	3	0	3	3	0	3	10	0	10	0	1	1
6	0	0	0	1	0	1	6	0	6	0	0	0
7	1	0	1	5	0	5	4	0	4	0	0	0
8	1	0	1	0	0	0	4	0	4	1	2	3
9	1	0	1	1	0	1	1	0	1	0	0	0

Table 5 (cont'd)

Total lengtn (cm)	Set no. 33 M	33 F	33 T	34 M	34 F	34 T	35 M	35 F	35 T	36 M	36 F	36 T
90	4	0	4	1	0	1	2	0	2	-	3	3
1	1	0	1	1	0	1	2	0	2	-	1	1
2	-	0	0	2	0	2	-	0	0	-	2	2
3	-	0	0	-	0	0	-	0	0	-	1	1
4	-	0	0	-	0	0	-	0	0	-	0	0
5	-	0	0	-	0	0	-	0	0	-	2	2
6	-	0	0	-	0	0	-	0	0	-	4	4
7	-	1	1	-	0	0	-	0	0	-	2	2
8	-	2	2	-	0	0	-	0	0	-	5	5
9	-	0	0	-	0	0	-	0	0	-	2	2
100	-	0	0	-	0	0	-	0	0	-	1	1
1	-	0	0	-	0	0	-	0	0	-	0	0
2	-	0	0	-	0	0	-	0	0	-	3	3
3	-	0	0	-	0	0	-	0	0	-	0	0
4	-	1	1	-	0	0	-	0	0	-	2	2
5	-	1	1	-	0	0	-	0	0	-	1	1
6	-	1	1	-	0	0	-	1	1	-	0	0
7	-	0	0	-	0	0	-	-	-	-	2	2
8	-	1	1	-	0	0	-	-	-	-	2	2
9	-	1	1	-	0	0	-	-	-	-	3	3
110	-	-	-	-	1	1	-	-	-	-	0	0
11	-	-	-	-	-	-	-	-	-	-	1	1
12	-	-	-	-	-	-	-	-	-	-	1	1
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	92	15	107	82	2	84	145	2	147	9	51	60

Table 5 (cont'd)

Total lengtn	Set no.			Total								
	37			tagged			untagged			caught		
(cm)	M	F	T	M	F	T	M	F	T	M	F	T
46	-	-	-	1	-	1	-	-	-	1	-	1
7	-	-	-	0	-	0	-	-	-	0	-	0
8	-	-	-	0	1	1	-	-	-	0	1	1
9	-	-	-	2	5	7	-	1	1	2	6	8
50	-	1	1	3	3	6	1	0	1	4	3	7
1	-	0	0	3	1	4	0	0	0	3	1	4
2	-	1	1	3	4	7	1	1	2	4	5	9
3	-	0	0	10	4	14	1	0	1	11	4	15
4	-	0	0	8	7	15	3	0	3	11	7	18
5	-	0	0	10	7	17	1	0	1	11	7	18
6	-	0	0	9	15	24	3	0	3	12	15	27
7	-	0	0	18	9	27	1	3	4	19	12	31
8	-	0	0	14	18	32	6	5	11	20	23	43
9	-	0	0	16	15	31	5	2	7	21	17	38
60	-	0	0	27	12	39	3	3	6	30	15	45
1	-	1	1	29	19	48	4	3	7	33	22	55
2	-	0	0	38	10	48	7	3	10	45	13	58
3	-	0	0	29	16	45	8	2	10	37	18	55
4	-	2	2	26	21	47	3	0	3	29	21	50
5	-	0	0	25	24	49	3	2	5	28	26	54
6	-	0	0	27	12	39	9	4	13	36	16	52
7	-	1	1	28	19	47	8	1	9	36	20	56
8	-	0	0	41	13	54	6	1	7	47	14	61
9	-	0	0	41	14	55	5	2	7	46	16	62
70	1	0	1	41	7	48	11	0	11	52	7	59
1	0	0	0	66	11	77	14	2	16	80	13	93
2	0	0	0	60	8	68	16	2	18	76	10	86
3	0	0	0	73	7	80	19	2	21	92	9	101
4	0	0	0	91	10	101	7	2	9	98	12	110
5	0	2	2	118	8	126	13	1	14	131	9	140
6	0	0	0	146	11	157	13	2	15	159	13	172
7	0	0	0	123	6	129	14	1	15	137	7	144
8	2	0	2	166	8	174	21	0	21	187	8	195
9	0	0	0	155	6	161	32	2	34	187	8	195
80	1	0	1	206	3	209	17	0	17	223	3	226
1	-	0	0	164	5	169	18	0	18	182	5	187
2	-	0	0	160	9	169	16	0	16	176	9	185
3	-	1	1	178	3	181	9	1	10	187	4	191
4	-	0	0	133	11	144	9	3	12	142	14	156
5	-	0	0	113	5	118	8	1	9	121	6	127
6	-	2	2	81	6	87	7	1	8	88	7	95
7	-	0	0	71	2	73	5	0	5	76	2	78
8	-	0	0	58	6	64	4	0	4	62	6	68
9	-	1	1	40	5	45	3	0	3	43	5	48

Table 5 (cont'd)

Total length (cm)	Set no. 37			Total tagged			Total untagged			Total caught		
	M	F	T	M	F	T	M	F	T	M	F	T
90	-	1	1	34	12	46	3	0	3	37	12	49
1	-	1	1	15	6	21	-	0	0	15	6	21
2	-	0	0	11	9	20	-	0	0	11	9	20
3	-	0	0	13	3	16	-	1	1	13	4	17
4	-	1	1	3	9	12	-	0	0	3	9	12
5	-	1	1	1	8	9	-	0	0	1	8	9
6	-	0	0	3	11	14	-	2	2	3	13	16
7	-	1	1	0	9	9	-	2	2	0	11	11
8	-	0	0	1	13	14	-	0	0	1	13	14
9	-	0	0	0	15	15	-	0	0	0	15	15
100	-	1	1	0	13	13	-	0	0	0	13	13
1	-	2	2	0	10	10	-	0	0	0	10	10
2	-	0	0	0	13	13	-	0	0	0	13	13
3	-	2	2	0	13	13	-	0	0	0	13	13
4	-	0	0	0	16	16	-	0	0	0	16	16
5	-	3	3	0	17	17	-	0	0	0	17	17
6	-	2	2	0	16	16	-	0	0	0	16	16
7	-	1	1	0	14	14	-	0	0	0	14	14
8	-	1	1	0	14	14	-	0	0	0	14	14
9	-	2	2	0	16	16	-	0	0	0	16	16
110	-	2	2	0	8	8	-	2	2	0	10	10
11	-	3	3	0	8	8	-	-	-	0	8	8
12	-	0	0	0	7	7	-	-	-	0	7	7
13	-	1	1	0	6	6	-	-	-	0	6	6
14	-	0	0	0	1	1	-	-	-	0	1	1
15	-	0	0	0	2	2	-	-	-	0	2	2
16	-	0	0	0	1	1	-	-	-	0	1	1
17	-	0	0	0	1	1	-	-	-	0	1	1
18	-	1	1	0	2	2	-	-	-	0	2	2
19	-	-	-	0	1	1	-	-	-	0	1	1
120	-	-	-	0	1	1	-	-	-	0	1	1
Unkn	-	-	-	1	-	1	-	-	-	1	-	1
Total	4	38	42	2733	661	3394	337	60	397	3070	721	3791

Table 6. Length frequency of tagged dogfish by area, Campbell River, April-May 1981.

Total length	Area								
	Marina Is.			S of Cape Mudge			Oyster Bay		
(cm)	M	F	T	M	F	T	M	F	T
46	-	-	-	1	-	1	-	-	-
7	-	-	-	0	-	0	-	-	-
8	-	-	-	0	1	1	-	-	-
9	-	-	-	0	2	2	2	3	5
50	-	2	2	3	0	3	0	1	1
1	-	0	0	3	0	3	0	1	1
2	-	1	1	1	3	4	2	0	2
3	-	0	0	9	4	13	1	0	1
4	-	0	0	7	6	13	1	1	2
5	-	0	0	5	4	9	5	3	8
6	-	2	2	6	12	18	3	1	4
7	-	0	0	15	7	22	3	2	5
8	-	1	1	13	11	24	1	6	7
9	-	1	1	13	12	25	3	2	5
60	-	0	0	22	11	33	5	1	6
1	-	1	1	15	14	29	14	4	18
2	1	0	1	26	8	34	11	2	13
3	0	0	0	24	14	38	5	2	7
4	0	3	3	19	11	30	7	7	14
5	0	0	0	18	18	36	7	6	13
6	1	1	3	21	10	31	5	1	6
7	0	2	2	23	12	35	5	5	10
8	0	0	0	32	11	43	9	2	11
9	0	0	0	30	13	43	11	1	12
70	1	1	2	34	5	39	6	1	7
1	1	0	1	56	10	66	9	1	10
2	2	0	2	45	8	53	13	0	13
3	0	0	0	60	5	65	13	2	15
4	0	0	0	76	10	86	15	0	15
5	1	2	3	102	5	107	15	1	16
6	1	1	2	133	5	138	12	5	17
7	1	0	1	112	6	118	10	0	10
8	2	0	2	149	7	156	15	1	16
9	2	2	4	142	2	144	11	2	13
80	3	1	4	189	2	191	14	0	14
1	1	1	2	148	3	151	15	1	16
2	1	1	2	150	7	157	9	1	10
3	1	1	2	170	2	172	7	0	7
4	1	3	4	123	7	130	9	1	10
5	0	2	2	105	2	107	8	1	9
6	0	3	3	73	3	76	8	0	8
7	0	0	0	66	2	68	5	0	5
8	1	4	5	56	2	58	1	0	1
9	0	1	1	38	4	42	2	0	2

Table 6 (cont'd)

Total length (cm)	Area								
	Marina Is.			S of Cape Mudge			Oyster Bay		
	M	F	T	M	F	T	M	F	T
90	1	8	9	33	4	37	0	0	0
1	0	4	4	14	2	16	1	0	1
2	0	3	3	10	6	16	1	0	1
3	1	2	3	12	1	13	-	0	0
4	-	4	4	3	4	7	-	1	1
5	-	6	6	1	2	3	-	0	0
6	-	7	7	3	4	7	-	0	0
7	-	4	4	0	3	3	-	2	2
8	-	6	6	1	7	8	-	0	0
9	-	4	4	-	8	8	-	3	3
100	-	6	6	-	7	7	-	0	0
1	-	2	2	-	6	6	-	2	2
2	-	4	4	-	5	5	-	4	4
3	-	3	3	-	7	7	-	3	3
4	-	4	4	-	9	9	-	3	3
5	-	5	5	-	9	9	-	3	3
6	-	2	2	-	11	11	-	3	3
7	-	5	5	-	6	6	-	3	3
8	-	5	5	-	7	7	-	2	2
9	-	6	6	-	7	7	-	3	3
110	-	4	4	-	4	4	-	0	0
11	-	4	4	-	4	4	-	0	0
12	-	3	3	-	4	4	-	0	0
13	-	3	3	-	3	3	-	0	0
14	-	0	0	-	1	1	-	0	0
15	-	0	0	-	2	2	-	0	0
16	-	1	1	-	0	0	-	0	0
17	-	0	0	-	0	0	-	1	1
18	-	1	1	-	0	0	-	1	1
19	-	1	1	-	0	0	-	-	-
120	-	-	-	-	1	1	-	-	-
Unkn	-	-	-	1	-	1	-	-	-
Total	23	144	167	2411	415	2826	299	102	401

Table 7. Length frequency of tagged dogfish by set in the Central Strait area, November 1981.

Total length	Set no.											
	1 + 2			3			4			5		
(cm)	M	F	T	M	F	T	M	F	T	M	F	T
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	2	-	2	-	-	-	-	-	-	-	-	-
8	0	-	0	-	-	-	-	-	-	-	-	-
9	0	1	1	-	-	-	-	-	-	-	-	-
60	0	0	0	-	-	-	-	-	-	-	-	-
1	0	0	0	-	-	-	-	-	-	-	-	-
2	1	3	4	-	-	-	1	-	1	-	-	-
3	3	1	4	-	-	-	2	-	2	-	-	-
4	0	0	0	-	-	-	0	-	0	-	-	-
5	0	1	1	1	-	1	0	-	0	-	-	-
6	0	2	2	0	-	0	1	1	2	-	-	-
7	1	1	2	0	1	1	1	1	2	-	-	-
8	1	4	5	1	0	1	2	1	3	-	-	-
9	1	2	3	1	0	1	1	1	2	-	-	-
70	7	2	9	1	0	1	1	1	2	-	-	-
1	1	3	4	2	0	2	3	0	3	-	1	1
2	1	6	7	3	1	4	2	2	4	-	0	0
3	5	7	12	2	0	2	2	2	4	-	0	0
4	9	1	10	1	1	2	4	0	4	-	0	0
5	4	4	8	1	0	1	2	0	2	-	0	0
6	4	2	6	3	1	4	2	3	5	-	0	0
7	7	7	14	7	0	7	1	1	2	-	0	0
8	7	8	15	4	0	4	4	3	7	1	0	1
9	6	6	12	5	0	5	4	1	5	-	0	0
80	2	7	9	4	1	5	2	1	3	-	0	0
1	1	6	7	2	1	3	2	4	6	-	0	0
2	0	7	7	6	0	6	1	0	1	-	0	0
3	1	4	5	0	0	0	-	0	0	-	0	0
4	-	9	9	1	0	1	-	1	1	-	0	0
5	-	7	7	0	1	1	-	0	0	-	0	0
6	-	7	7	0	0	0	-	2	2	-	0	0
7	-	4	4	1	0	1	-	3	3	-	0	0
8	-	4	4	1	1	2	-	1	1	-	0	0
9	-	1	1	0	0	0	-	0	0	-	0	0

Table 7. Length frequency of tagged dogfish by set, Central Strait.

Total length (cm)	Set no. 1 + 2 M	1 + 2 F	1 + 2 T	3 M	3 F	3 T	4 M	4 F	4 T	5 M	5 F	5 T
90	-	2	2	0	1	1	-	1	1	-	0	0
1	-	3	3	1	0	1	-	0	0	-	0	0
2	-	3	3	-	0	0	-	0	0	-	0	0
3	-	3	3	-	0	0	-	1	1	-	0	0
4	-	4	4	-	0	0	-	1	1	-	0	0
5	-	5	5	-	2	2	-	1	1	-	0	0
6	-	2	2	-	1	1	-	1	1	-	0	0
7	-	4	4	-	3	3	-	0	0	-	1	1
8	-	3	3	-	4	4	-	2	2	-	1	1
9	-	3	3	-	4	4	-	0	0	-	0	0
100	-	0	0	-	1	1	-	1	1	-	1	1
1	-	2	2	-	2	2	-	0	0	-	2	2
2	-	2	2	-	3	3	-	3	3	-	0	0
3	-	3	3	-	2	2	-	2	2	-	0	0
4	-	1	1	-	4	4	-	1	1	-	0	0
5	-	1	1	-	1	1	-	-	-	-	0	0
6	-	0	0	-	8	8	-	-	-	-	0	0
7	-	0	0	-	2	2	-	-	-	-	0	0
8	-	2	2	-	0	0	-	-	-	-	0	0
9	-	1	1	-	2	2	-	-	-	-	0	0
110	-	1	1	-	0	0	-	-	-	-	0	0
11	-	1	1	-	0	0	-	-	-	-	0	0
12	-	0	0	-	1	1	-	-	-	-	0	0
13	-	0	0	-	0	0	-	-	-	-	0	0
14	-	1	1	-	0	0	-	-	-	-	0	0
15	-	-	-	-	2	2	-	-	-	-	1	1
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	64	164	228	48	51	99	38	43	81	1	7	8

Table 7 (cont'd)

Total length (cm)	Set no. 6 M	6 F	6 T	7 M	7 F	7 T	8 + 9 M	8 + 9 F	8 + 9 T	10 + 11 M	10 + 11 F	10 + 11 T
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	1	-	1
3	-	-	-	-	-	-	-	-	-	0	-	0
4	-	-	-	-	-	-	-	-	-	1	-	1
5	-	-	-	-	-	-	-	-	-	0	-	0
6	-	-	-	-	-	-	1	-	1	0	-	0
7	-	-	-	-	-	-	0	-	0	0	-	0
8	-	-	-	-	-	-	0	-	0	0	-	0
9	-	-	-	-	-	-	0	1	1	1	-	1
60	-	-	-	-	-	-	1	0	1	1	-	1
1	-	-	-	-	-	-	0	0	0	0	-	0
2	-	-	-	1	-	1	0	1	1	3	-	3
3	3	-	3	0	1	1	0	0	0	2	-	2
4	0	-	0	1	2	3	2	1	3	2	-	2
5	0	-	0	1	1	2	1	0	1	3	1	4
6	1	1	2	1	2	3	1	0	1	1	4	5
7	1	0	1	1	4	5	0	2	2	4	0	4
8	0	0	0	1	1	2	0	1	1	8	0	8
9	0	0	0	1	4	5	1	0	1	4	0	4
70	1	0	1	2	5	7	5	0	5	5	1	6
1	2	0	2	6	2	8	3	0	3	5	1	6
2	1	1	2	1	5	6	3	0	3	3	2	5
3	1	1	2	4	2	6	5	0	5	3	0	3
4	4	2	6	1	3	4	5	2	7	3	1	4
5	1	1	2	4	5	9	8	0	8	5	1	6
6	0	0	0	2	1	3	3	0	3	9	1	10
7	0	1	1	0	5	5	7	0	7	4	0	4
8	1	4	5	2	3	5	9	0	9	5	0	5
9	0	0	0	1	2	3	5	1	6	4	0	4
80	0	3	3	2	3	5	6	0	6	6	0	6
1	0	1	1	2	3	5	2	0	2	4	0	4
2	0	1	1	-	3	3	9	0	9	8	0	8
3	0	1	1	-	5	5	5	0	5	2	0	2
4	0	1	1	-	3	3	4	0	4	6	0	6
5	1	1	2	-	2	2	11	0	11	3	0	3
6	-	3	3	-	2	2	8	0	8	4	0	4
7	-	1	1	-	0	0	3	1	4	1	1	2
8	-	0	0	-	4	4	3	0	3	2	0	2
9	-	0	0	-	4	4	2	0	2	2	0	2

Table 7 (cont'd)

Total length (cm)	Set no. 6 M	6 F	6 T	7 M	7 F	7 T	8 + 9 M	8 + 9 F	8 + 9 T	10 + 11 M	10 + 11 F	10 + 11 T
90	-	0	0	-	1	1	1	1	2	1	0	1
1	-	0	0	-	4	4	0	1	1	1	1	2
2	-	1	1	-	0	0	0	0	0	0	1	1
3	-	1	1	-	2	2	0	0	0	1	0	1
4	-	2	2	-	3	3	1	1	2	-	2	2
5	-	0	0	-	3	3	1	0	1	-	2	2
6	-	1	1	-	3	3	-	3	3	-	1	1
7	-	0	0	-	1	1	-	3	3	-	2	2
8	-	1	1	-	1	1	-	2	2	-	3	3
9	-	0	0	-	3	3	-	2	2	-	0	0
100	-	0	0	-	3	3	-	3	3	-	0	0
1	-	0	0	-	4	4	-	2	2	-	2	2
2	-	0	0	-	1	1	-	1	1	-	2	2
3	-	0	0	-	0	0	-	3	3	-	1	1
4	-	0	0	-	2	2	-	1	1	-	1	1
5	-	0	0	-	2	2	-	3	3	-	0	0
6	-	0	0	-	0	0	-	3	3	-	1	1
7	-	3	3	-	0	0	-	3	3	-	4	4
8	-	0	0	-	1	1	-	3	3	-	2	2
9	-	1	1	-	0	0	-	2	2	-	2	2
110	-	-	-	-	0	0	-	1	1	-	1	1
11	-	-	-	-	0	0	-	0	0	-	1	1
12	-	-	-	-	1	1	-	0	0	-	0	0
13	-	-	-	-	-	-	-	2	2	-	2	2
14	-	-	-	-	-	-	-	0	0	-	-	-
15	-	-	-	-	-	-	-	1	1	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	17	33	50	34	112	146	116	51	167	118	44	162

Table 7 (cont'd)

Total length (cm)	Set no. 12-16 M	F	T	17 + 18 M	F	T	19 + 20 M	F	T	21 M	F	T
49	-	-	-	-	-	-	1	-	1	-	-	-
50	-	-	-	-	-	-	0	-	0	-	-	-
1	-	-	-	-	-	-	0	-	0	-	-	-
2	-	-	-	-	-	-	0	-	0	-	-	-
3	1	-	1	-	-	-	0	-	0	-	-	-
4	2	-	2	-	-	-	0	-	0	-	-	-
5	0	-	0	-	-	-	1	-	1	-	-	-
6	0	1	1	-	-	-	1	1	2	-	-	-
7	1	1	2	-	-	-	0	0	0	-	-	-
8	1	1	2	1	-	1	0	0	0	-	-	-
9	3	0	3	0	-	0	1	0	1	-	-	-
60	3	3	6	0	-	0	0	0	0	-	-	-
1	5	2	7	0	-	0	0	1	1	-	-	-
2	2	1	3	0	-	0	2	1	3	-	-	-
3	7	1	8	0	-	0	0	0	0	-	-	-
4	5	3	8	0	-	0	1	1	2	-	-	-
5	6	2	8	0	-	0	2	0	2	-	-	-
6	10	2	12	1	1	2	2	0	2	-	-	-
7	10	3	13	0	0	0	0	2	2	-	-	-
8	13	5	18	1	0	1	1	1	2	-	1	1
9	7	1	8	0	0	0	3	2	5	-	0	0
70	4	2	6	1	0	1	2	1	3	-	0	0
1	7	3	10	1	0	1	4	1	5	-	0	0
2	16	1	17	0	1	1	2	0	2	1	1	2
3	15	2	17	0	0	0	1	3	4	0	0	0
4	14	3	17	3	0	3	1	2	3	0	0	0
5	11	1	12	3	0	3	3	0	3	0	0	0
6	17	1	18	4	0	4	3	2	5	2	0	2
7	11	0	11	7	0	7	2	0	2	-	2	2
8	14	0	14	6	0	6	1	1	2	-	1	1
9	13	1	14	10	0	10	2	0	2	-	0	0
80	15	2	17	11	0	11	0	0	0	-	0	0
1	15	0	15	18	0	18	0	2	2	-	0	0
2	7	0	7	12	0	12	0	1	1	-	1	1
3	5	2	7	12	0	12	0	1	1	-	0	0
4	3	0	3	10	0	10	0	1	1	-	0	0
5	3	0	3	9	0	9	0	0	0	-	0	0
6	5	0	5	8	0	8	0	2	2	-	0	0
7	5	0	5	7	0	7	0	1	1	-	1	1
8	0	0	0	10	0	10	1	2	3	-	0	0
9	1	1	2	9	0	9	-	0	0	-	0	0

Table 7 (cont'd)

Total length (cm)	Set no. 12-16 M	F	T	17 + 18 M	F	T	19 + 20 M	F	T	21 M	F	T
90	3	0	3	3	0	3	-	0	0	-	0	0
1	1	1	2	3	0	3	-	0	0	-	1	1
2	-	0	0	2	0	2	-	0	0	-	0	0
3	-	2	2	0	0	0	-	4	4	-	1	1
4	-	1	1	0	0	0	-	2	2	-	1	1
5	-	0	0	1	0	1	-	0	0	-	0	0
6	-	3	3	-	0	0	-	3	3	-	0	0
7	-	2	2	-	0	0	-	2	2	-	0	0
8	-	2	2	-	0	0	-	6	6	-	3	3
9	-	2	2	-	1	1	-	4	4	-	0	0
100	-	1	1	-	0	0	-	6	6	-	0	0
1	-	5	5	-	0	0	-	3	3	-	1	1
2	-	3	3	-	0	0	-	4	4	-	1	1
3	-	3	3	-	0	0	-	2	2	-	0	0
4	-	3	3	-	0	0	-	5	5	-	2	2
5	-	1	1	-	0	0	-	2	2	-	0	0
6	-	1	1	-	0	0	-	3	3	-	0	0
7	-	9	9	-	0	0	-	1	1	-	0	0
8	-	4	4	-	1	1	-	2	2	-	0	0
9	-	1	1	-	-	-	-	3	3	-	2	2
110	-	1	1	-	-	-	-	0	0	-	0	0
11	-	0	0	-	-	-	-	1	1	-	0	0
12	-	1	1	-	-	-	-	1	1	-	0	0
13	-	1	1	-	-	-	-	-	-	-	0	0
14	-	3	3	-	-	-	-	-	-	-	0	0
15	-	-	-	-	-	-	-	-	-	-	1	1
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	1	-	-	-	-	-	-	-	-	-
Total	261	95	357	153	4	157	37	83	120	3	20	23

Table 7 (cont'd)

Total length (cm)	Set no. 22 M	22 F	22 T	23 + 24 M	23 + 24 F	23 + 24 T	25 M	25 F	25 T	26 M	26 F	26 T
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	1	-	1	-	-	-	-	1	1
8	1	-	1	0	-	0	-	-	-	-	0	0
9	0	-	0	0	-	0	-	-	-	-	2	2
60	0	-	0	0	-	0	-	-	-	1	0	1
1	0	-	0	1	-	1	-	-	-	1	0	1
2	0	1	1	0	-	0	-	-	-	0	0	0
3	0	1	1	0	-	0	-	-	-	0	0	0
4	0	1	1	0	-	0	-	-	-	1	0	1
5	0	1	1	0	1	1	-	-	-	0	0	0
6	0	1	1	0	0	0	-	-	-	0	0	0
7	0	0	0	0	1	1	1	-	1	0	1	1
8	0	0	0	0	0	0	0	1	1	0	0	0
9	1	3	4	1	0	1	1	0	1	1	1	2
70	0	1	1	2	0	2	2	0	2	1	0	1
1	0	0	0	1	0	1	0	0	0	0	1	1
2	1	0	1	1	0	1	1	1	2	1	1	2
3	0	0	0	1	0	1	0	0	0	0	1	1
4	0	0	0	7	0	7	0	0	0	1	0	1
5	0	0	0	7	0	7	0	0	0	3	0	3
6	0	0	0	7	0	7	2	0	2	2	2	4
7	0	3	3	13	0	13	0	0	0	1	0	1
8	0	0	0	4	0	4	0	0	0	2	0	2
9	1	0	1	9	0	9	0	0	0	1	1	2
80	0	1	1	9	0	9	1	0	1	0	0	0
1	0	0	0	6	0	6	-	0	0	2	0	2
2	0	0	0	4	0	4	-	0	0	0	0	0
3	0	0	0	4	0	4	-	0	0	0	1	1
4	1	1	2	10	0	10	-	0	0	0	0	0
5	-	0	0	3	0	3	-	0	0	0	1	1
6	-	0	0	3	0	3	-	0	0	0	0	0
7	-	0	0	0	0	0	-	0	0	0	0	0
8	-	0	0	0	0	0	-	0	0	1	0	1
9	-	0	0	3	-	3	-	0	0	-	0	0

Table 7 (cont'd)

Total length (cm)	Set no. 22 M	22 F	22 T	23 + 24 M	23 + 24 F	23 + 24 T	25 M	25 F	25 T	26 M	26 F	26 T
90	-	1	1	1	0	1	-	0	0	-	0	0
1	-	0	0	0	0	0	-	0	0	-	0	0
2	-	0	0	1	0	1	-	0	0	-	0	0
3	-	1	1	0	0	0	-	1	1	-	1	1
4	-	2	2	1	0	1	-	0	0	-	0	0
5	-	0	0	-	0	0	-	1	1	-	1	1
6	-	0	0	-	0	0	-	1	1	-	1	1
7	-	0	0	-	0	0	-	1	1	-	0	0
8	-	0	0	-	1	1	-	2	2	-	0	0
9	-	0	0	-	0	0	-	0	0	-	1	1
100	-	2	2	-	2	2	-	2	2	-	1	1
1	-	0	0	-	1	1	-	1	1	-	1	1
2	-	1	1	-	2	2	-	1	1	-	0	0
3	-	4	4	-	1	1	-	2	2	-	0	0
4	-	1	1	-	1	1	-	0	0	-	2	2
5	-	0	0	-	0	0	-	1	1	-	1	1
6	-	1	1	-	0	0	-	2	2	-	0	0
7	-	2	2	-	2	2	-	0	0	-	0	0
8	-	1	1	-	1	1	-	1	1	-	0	0
9	-	1	1	-	1	1	-	0	0	-	0	0
110	-	1	1	-	1	1	-	1	1	-	1	1
11	-	-	-	-	1	1	-	-	-	-	-	-
12	-	-	-	-	0	0	-	-	-	-	-	-
13	-	-	-	-	0	0	-	-	-	-	-	-
14	-	-	-	-	1	1	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	32	37	100	17	117	8	19	27	19	23	42

Table 7 (cont'd)

Total length (cm)	Set no. 27 + 28			29			30			31		
	M	F	T	M	F	T	M	F	T	M	F	T
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-
3	1	-	1	-	-	-	-	-	-	-	-	-
4	0	-	0	-	-	-	-	-	-	-	-	-
5	0	-	0	-	-	-	-	-	-	-	-	-
6	1	1	2	-	-	-	-	-	-	-	-	-
7	0	0	0	-	-	-	-	-	-	-	-	-
8	0	0	0	-	-	-	-	-	-	-	-	-
9	0	0	0	-	-	-	-	-	-	-	-	-
60	2	1	3	-	-	-	-	-	-	-	-	-
1	1	0	1	-	-	-	-	-	-	-	-	-
2	1	2	3	-	-	-	-	-	-	-	-	-
3	3	0	3	-	-	-	-	-	-	-	-	-
4	6	1	7	-	-	-	-	-	-	-	-	-
5	1	2	3	-	-	-	-	-	-	-	-	-
6	2	2	4	-	-	-	-	-	-	-	-	-
7	0	3	3	-	-	-	-	-	-	-	-	-
8	2	1	3	-	-	-	-	-	-	-	-	-
9	4	3	7	-	-	-	-	-	-	-	-	-
70	5	5	10	-	-	-	-	-	-	-	-	-
1	2	2	4	-	-	-	-	-	-	-	-	-
2	2	2	4	-	-	-	-	-	-	-	-	-
3	3	4	7	-	-	-	-	-	-	-	-	-
4	7	4	11	-	-	-	-	-	-	-	-	-
5	3	6	9	-	-	-	-	-	-	-	-	-
6	4	3	7	1	-	1	-	-	-	-	-	-
7	5	4	9	-	-	0	-	1	1	-	-	-
8	4	8	12	-	-	0	-	0	0	-	-	-
9	5	3	8	-	-	0	-	1	1	-	-	-
80	3	8	11	-	-	0	-	0	0	-	-	-
1	4	4	8	-	-	0	-	0	0	-	-	-
2	1	4	5	-	-	0	1	0	1	-	-	-
3	3	3	6	-	-	0	-	2	2	-	-	-
4	1	4	5	-	-	0	-	0	0	-	-	-
5	0	6	6	-	-	0	-	0	0	-	-	-
6	1	6	7	-	-	0	-	0	0	-	-	-
7	1	2	3	-	-	0	-	1	1	-	-	-
8	0	2	2	-	1	1	-	0	0	-	-	-
9	2	6	8	-	0	0	-	0	0	-	-	-

Table 7 (cont'd)

Total length (cm)	Set no. 27 + 28 M	F	T	29 M	F	T	30 M	F	T	31 M	F	T
90	0	2	2	-	1	1	-	1	1	-	-	-
1	0	10	10	-	1	1	-	0	0	-	-	-
2	1	5	6	-	1	1	-	0	0	-	-	-
3	0	5	5	-	0	0	-	1	1	-	-	-
4	-	3	3	-	1	1	-	0	0	-	-	-
5	-	3	3	-	0	0	-	0	0	-	1	1
6	-	5	5	-	0	0	-	1	1	-	0	0
7	-	10	10	-	0	0	-	0	0	-	1	1
8	-	4	4	-	0	0	-	1	1	-	2	2
9	-	7	7	-	2	2	-	0	0	-	2	2
100	-	6	6	-	1	1	-	1	1	-	3	3
1	-	3	3	-	0	0	-	0	0	-	2	2
2	-	6	6	-	1	1	-	0	0	-	1	1
3	-	6	6	-	0	0	-	0	0	-	3	3
4	-	1	1	-	1	1	-	1	1	-	1	1
5	-	2	2	-	0	0	-	1	1	-	0	0
6	-	2	2	-	1	1	-	0	0	-	2	2
7	-	4	4	-	1	1	-	0	0	-	1	1
8	-	0	0	-	1	1	-	1	1	-	2	2
9	-	2	2	-	-	-	-	-	-	-	0	0
110	-	2	2	-	-	-	-	-	-	-	0	0
11	-	0	0	-	-	-	-	-	-	-	0	0
12	-	0	0	-	-	-	-	-	-	-	0	0
13	-	1	1	-	-	-	-	-	-	-	0	0
14	-	-	-	-	-	-	-	-	-	-	1	1
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	81	191	272	1	13	14	1	13	14	0	22	22

Table 7 (cont'd)

Total length (cm)	Set no. 32 M	32 F	32 T	33 + 34 M	33 + 34 F	33 + 34 T	35 M	35 F	35 T	36 M	36 F	36 T
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	1	-	1	-	-	-
3	-	-	-	-	-	-	0	-	0	-	-	-
4	-	-	-	-	-	-	0	-	0	-	-	-
5	-	-	-	-	-	-	1	1	2	-	-	-
6	-	-	-	-	-	-	0	2	2	-	-	-
7	-	-	-	-	-	-	0	1	1	-	-	-
8	-	-	-	-	-	-	1	0	1	-	-	-
9	-	-	-	-	-	-	0	0	0	-	-	-
60	-	-	-	-	-	-	0	2	2	-	-	-
1	-	-	-	-	-	-	0	0	0	-	-	-
2	-	-	-	-	-	-	0	0	0	-	-	-
3	-	-	-	-	-	-	0	0	0	-	-	-
4	-	-	-	-	-	-	0	1	1	-	-	-
5	-	-	-	-	-	-	0	2	2	-	-	-
6	-	-	-	-	-	-	0	1	1	-	-	-
7	-	-	-	-	-	-	0	1	1	-	-	-
8	-	-	-	-	-	-	1	0	1	-	-	-
9	-	-	-	-	-	-	0	0	0	-	-	-
70	-	-	-	-	-	-	0	0	0	-	-	-
1	-	-	-	-	-	-	0	1	1	-	-	-
2	-	-	-	-	-	-	2	0	2	-	-	-
3	-	-	-	-	-	-	0	1	1	-	-	-
4	-	-	-	-	-	-	1	2	3	-	-	-
5	-	-	-	-	-	-	0	3	3	-	-	-
6	-	-	-	-	-	-	0	0	0	-	-	-
7	-	-	-	-	-	-	0	1	1	-	-	-
8	-	-	-	-	-	-	0	0	0	-	-	-
9	-	-	-	-	-	-	0	5	5	-	-	-
80	-	-	-	-	-	-	1	0	1	-	-	-
1	-	-	-	-	-	-	0	1	1	-	1	1
2	-	-	-	-	-	-	0	2	2	-	0	0
3	-	-	-	-	2	2	1	1	2	-	0	0
4	-	-	-	-	0	0	-	2	2	-	0	0
5	-	-	-	-	0	0	-	0	0	-	0	0
6	-	-	-	-	0	0	-	1	1	-	0	0
7	-	1	1	-	0	0	-	1	1	-	1	1
8	-	0	0	-	0	0	-	0	0	-	0	0
9	-	0	0	-	0	0	-	0	0	-	0	0

Table 7 (cont'd)

Total length (cm)	Set no. 32 M	32 F	32 T	33 + 34 M	33 + 34 F	33 + 34 T	35 M	35 F	35 T	36 M	36 F	36 T
90	-	0	0	-	0	0	-	1	1	-	0	0
1	-	0	0	-	1	1	-	2	2	-	1	1
2	-	0	0	-	0	0	-	2	2	-	1	1
3	-	2	2	-	1	1	-	2	2	-	0	0
4	-	1	1	-	1	1	-	2	2	-	0	0
5	-	0	0	-	2	2	-	1	1	-	0	0
6	-	1	1	-	2	2	-	3	3	-	0	0
7	-	0	0	-	4	4	-	1	1	-	0	0
8	-	3	3	-	2	2	-	1	1	-	1	1
9	-	1	1	-	1	1	-	2	2	-	0	0
100	-	2	2	-	1	1	-	1	1	-	1	1
1	-	2	2	-	3	3	-	2	2	-	1	1
2	-	0	0	-	1	1	-	2	2	-	1	1
3	-	0	0	-	1	1	-	4	4	-	0	0
4	-	1	1	-	4	4	-	0	0	-	0	0
5	-	1	1	-	6	6	-	1	1	-	1	1
6	-	-	-	-	3	3	-	1	1	-	1	1
7	-	-	-	-	2	2	-	2	2	-	-	-
8	-	-	-	-	1	1	-	0	0	-	-	-
9	-	-	-	-	1	1	-	1	1	-	-	-
110	-	-	-	-	0	0	-	0	0	-	-	-
11	-	-	-	-	0	0	-	0	0	-	-	-
12	-	-	-	-	2	2	-	1	1	-	-	-
13	-	-	-	-	3	3	-	-	-	-	-	-
14	-	-	-	-	0	0	-	-	-	-	-	-
15	-	-	-	-	0	0	-	-	-	-	-	-
16	-	-	-	-	0	0	-	-	-	-	-	-
17	-	-	-	-	0	0	-	-	-	-	-	-
18	-	-	-	-	0	0	-	-	-	-	-	-
119	-	-	-	-	1	1	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	15	15	0	45	45	9	64	73	0	10	10

Table 7 (cont'd)

Total length (cm)	Set no. 37 M	37 F	37 T	38 M	38 F	38 T	39 M	39 F	39 T	40 M	40 F	40 T
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	1	1	-	-	-	-	-	-	-	-	-
9	-	1	1	-	-	-	-	-	-	-	-	-
60	-	0	0	-	-	-	-	-	-	-	-	-
1	-	0	0	-	-	-	-	-	-	-	-	-
2	-	1	1	-	-	-	-	-	-	-	-	-
3	-	0	0	-	-	-	-	-	-	-	-	-
4	-	1	1	-	-	-	-	-	-	-	-	-
5	-	1	1	-	-	-	-	-	-	-	-	-
6	-	0	0	-	-	-	-	-	-	-	-	-
7	-	1	1	-	-	-	-	-	-	-	-	-
8	-	0	0	-	-	-	-	-	-	-	-	-
9	-	0	0	-	-	-	-	-	-	-	-	-
70	-	0	0	-	-	-	-	-	-	-	0	0
1	-	0	0	-	-	-	-	-	-	-	0	0
2	-	0	0	-	-	-	-	-	-	-	1	1
3	-	0	0	-	-	-	-	-	-	-	0	0
4	1	0	1	-	1	1	-	-	-	-	0	0
5	0	0	0	-	0	0	-	-	-	1	0	1
6	1	0	1	-	0	0	-	-	-	-	0	0
7	1	0	1	-	0	0	-	-	-	-	0	0
8	0	0	0	-	0	0	-	-	-	-	0	0
9	0	0	0	-	0	0	-	-	-	-	0	0
80	1	0	1	-	1	1	-	-	-	-	0	0
1	1	0	1	-	0	0	-	-	-	-	0	0
2	-	1	1	-	0	0	-	1	1	-	0	0
3	-	0	0	-	0	0	-	0	0	-	0	0
4	-	0	0	-	0	0	-	0	0	-	1	1
5	-	0	0	-	0	0	-	0	0	-	1	1
6	-	1	1	-	1	1	-	0	0	-	0	0
7	-	1	1	-	1	1	-	0	0	-	0	0
8	-	0	0	-	0	0	-	1	1	-	0	0
9	-	0	0	-	0	0	-	0	0	-	0	0

Table 7 (cont'd)

Total length (cm)	Set no. 37 M	37 F	37 T	38 M	38 F	38 T	39 M	39 F	39 T	40 M	40 F	40 T
90	-	0	0	-	0	0	-	0	0	-	1	1
1	-	0	0	-	1	1	-	1	1	-	2	2
2	-	0	0	-	0	0	-	1	1	-	0	0
3	-	0	0	-	1	1	-	2	2	-	1	1
4	-	1	1	-	0	0	-	4	4	-	0	0
5	-	0	0	-	2	2	-	2	2	-	2	2
6	-	1	1	-	0	0	-	1	1	-	2	2
7	-	1	1	-	4	4	-	1	1	-	4	4
8	-	2	2	-	3	3	-	3	3	-	1	1
9	-	1	1	-	1	1	-	3	3	-	3	3
100	-	2	2	-	0	0	-	9	9	-	3	3
1	-	0	0	-	2	2	-	4	4	-	1	1
2	-	1	1	-	4	4	-	2	2	-	2	2
3	-	0	0	-	2	2	-	5	5	-	4	4
4	-	1	1	-	2	2	-	7	7	-	5	5
5	-	2	2	-	5	5	-	3	3	-	2	2
6	-	0	0	-	3	3	-	4	4	-	1	1
7	-	0	0	-	0	0	-	3	3	-	1	1
8	-	4	4	-	1	1	-	3	3	-	1	1
9	-	1	1	-	4	4	-	2	2	-	1	1
110	-	0	0	-	2	2	-	0	0	-	2	2
11	-	0	0	-	0	0	-	0	0	-	0	0
12	-	0	0	-	0	0	-	0	0	-	0	0
13	-	0	0	-	0	0	-	2	2	-	0	0
14	-	1	1	-	4	4	-	0	0	-	0	0
15	-	-	-	-	-	-	-	0	0	-	1	1
16	-	-	-	-	-	-	-	0	0	-	0	0
17	-	-	-	-	-	-	-	0	0	-	0	0
18	-	-	-	-	-	-	-	0	0	-	0	0
119	-	-	-	-	-	-	-	1	1	-	1	1
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	27	32	0	45	45	0	65	65	1	45	46

Table 7 (cont'd)

Total length (cm)	Set no. 41-44 M	41-44 F	41-44 T	45 M	45 F	45 T	46 M	46 F	46 T	47 M	47 F	47 T
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	1	1	-	-	-	-	-	-	-	-	-
3	-	0	0	-	-	-	-	-	-	-	-	-
4	-	0	0	-	-	-	-	-	-	-	-	-
5	-	1	1	-	-	-	-	-	-	-	-	-
6	-	2	2	-	-	-	-	-	-	-	-	-
7	-	0	0	-	-	-	-	-	-	-	-	-
8	-	0	0	-	-	-	-	-	-	-	-	-
9	-	0	0	-	-	-	-	-	-	-	-	-
80	1	0	1	-	-	-	-	-	-	-	-	-
1	0	1	1	-	-	-	-	-	-	-	-	-
2	0	1	1	-	-	-	-	-	-	-	-	-
3	0	2	2	-	-	-	-	-	-	-	-	-
4	0	1	1	-	-	-	-	-	-	-	-	-
5	0	2	2	-	1	1	-	-	-	-	-	-
6	0	3	3	-	0	0	-	-	-	-	-	-
7	1	2	3	-	0	0	-	-	-	-	-	-
8	-	5	5	-	0	0	-	-	-	-	-	-
9	-	2	2	-	0	0	-	-	-	-	-	-

Table 7 (cont'd)

Total length (cm)	Set no. 41-44 M	41-44 F	41-44 T	45 M	45 F	45 T	46 M	46 F	46 T	47 M	47 F	47 T
90	-	3	3	-	0	0	-	-	-	-	-	-
1	-	4	4	-	1	1	-	-	-	-	-	-
2	-	5	5	-	0	0	-	-	-	-	-	-
3	-	12	12	-	0	0	-	-	-	-	1	1
4	-	10	10	-	1	1	-	-	-	-	0	0
5	-	12	12	-	0	0	-	-	-	-	0	0
6	-	11	11	-	1	1	-	-	-	-	1	1
7	-	9	9	-	0	0	-	-	-	-	0	0
8	-	12	12	-	2	2	-	1	1	-	0	0
9	-	20	20	-	0	0	-	0	0	-	1	1
100	-	15	15	-	0	0	-	0	0	-	0	0
1	-	10	10	-	0	0	-	2	2	-	1	1
2	-	18	18	-	0	0	-	0	0	-	0	0
3	-	12	12	-	0	0	-	3	3	-	0	0
4	-	8	8	-	0	0	-	0	0	-	0	0
5	-	6	6	-	1	1	-	1	1	-	0	0
6	-	10	10	-	-	-	-	-	-	-	1	1
7	-	6	6	-	-	-	-	-	-	-	0	0
8	-	10	10	-	-	-	-	-	-	-	1	1
9	-	3	3	-	-	-	-	-	-	-	-	-
100	-	0	0	-	-	-	-	-	-	-	-	-
11	-	3	3	-	-	-	-	-	-	-	-	-
12	-	0	0	-	-	-	-	-	-	-	-	-
13	-	2	2	-	-	-	-	-	-	-	-	-
14	-	1	1	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	225	227	0	7	7	0	7	7	0	6	6

Table 7 (cont'd)

Total length (cm)	Set no. 48 + 49 M	F	T	50 M	F	T	51 M	F	T	52 M	F	T
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	1	1	-	-	-	-	2	2	-	-	-
5	-	0	0	-	-	-	-	0	0	-	-	-
6	-	1	1	-	-	-	-	2	2	-	-	-
7	-	1	1	-	-	-	-	0	0	-	1	1
8	-	0	0	-	-	-	-	1	1	-	1	1
9	-	3	3	-	-	-	1	3	4	-	2	2
60	-	3	3	-	-	-	0	5	5	-	1	1
1	-	3	3	-	1	1	0	0	0	1	1	2
2	-	1	1	-	3	3	0	2	2	2	0	2
3	-	2	2	-	0	0	0	0	0	0	3	3
4	-	2	2	-	0	0	0	1	1	0	0	0
5	-	1	1	-	0	0	0	1	1	0	1	1
6	-	2	2	-	0	0	0	0	0	0	1	1
7	-	0	0	-	0	0	0	0	0	0	0	0
8	-	2	2	-	0	0	0	0	0	0	0	0
9	-	1	1	-	1	1	0	0	0	0	3	3
70	-	0	0	-	0	0	1	2	3	0	1	1
1	-	1	1	-	0	0	-	0	0	0	2	2
2	1	1	2	-	2	2	-	0	0	0	0	0
3	0	2	2	-	1	1	-	0	0	0	1	1
4	0	0	0	-	0	0	-	0	0	0	0	0
5	-	1	1	-	1	1	-	0	0	0	0	0
6	1	1	2	-	1	1	-	1	1	0	0	0
7	0	1	1	-	1	1	-	1	1	0	1	1
8	0	4	4	-	1	1	-	0	0	0	1	1
9	0	6	6	-	0	0	-	1	1	0	0	0
80	0	1	1	-	1	1	-	0	0	0	1	1
1	0	5	5	-	1	1	-	1	1	0	0	0
2	0	3	3	1	2	3	-	0	0	0	1	1
3	1	2	3	-	1	1	-	0	0	1	1	2
4	-	3	3	-	1	1	-	3	3	-	2	2
5	-	2	2	-	1	1	-	0	0	-	0	0
6	-	3	3	-	2	2	-	1	1	-	0	0
7	-	2	2	-	3	3	-	0	0	-	1	1
8	-	2	2	-	2	2	-	1	1	-	0	0
9	-	4	4	-	1	1	-	3	3	-	2	2

Table 7 (cont'd)

Total length (cm)	Set no. 48 + 49 M	F	T	50 M	F	T	51 M	F	T	52 M	F	T
90	-	2	2	-	1	1	-	2	2	-	0	0
1	-	4	4	-	1	1	-	1	1	-	2	2
2	-	5	5	-	2	2	-	3	3	-	0	0
3	-	7	7	-	0	0	-	2	2	-	1	1
4	-	3	3	-	0	0	-	0	0	-	3	3
5	-	3	3	-	3	3	-	1	1	-	3	3
6	-	3	3	-	0	0	-	0	0	-	2	2
7	-	2	2	-	1	1	-	0	0	-	1	1
8	-	2	2	-	5	5	-	0	0	-	4	4
9	-	6	6	-	1	1	-	0	0	-	3	3
100	-	2	2	-	3	3	-	0	0	-	2	2
1	-	0	0	-	1	1	-	0	0	-	0	0
2	-	1	1	-	1	1	-	0	0	-	1	1
3	-	1	1	-	0	0	-	0	0	-	0	0
4	-	1	1	-	0	0	-	1	1	-	1	1
5	-	1	1	-	0	0	-	0	0	-	-	-
6	-	1	1	-	3	3	-	0	0	-	-	-
7	-	3	3	-	1	1	-	1	1	-	-	-
8	-	0	0	-	2	2	-	-	-	-	-	-
9	-	0	0	-	0	0	-	-	-	-	-	-
110	-	0	0	-	1	1	-	-	-	-	-	-
11	-	1	1	-	-	-	-	-	-	-	-	-
12	-	-	0	-	-	-	-	-	-	-	-	-
13	-	-	0	-	-	-	-	-	-	-	-	-
14	-	-	0	-	-	-	-	-	-	-	-	-
15	-	-	0	-	-	-	-	-	-	-	-	-
16	-	-	0	-	-	-	-	-	-	-	-	-
17	-	-	0	-	-	-	-	-	-	-	-	-
18	-	-	0	-	-	-	-	-	-	-	-	-
119	-	-	0	-	-	-	-	-	-	-	-	-
Unkn	-	-	1	-	-	-	-	-	-	-	-	-
Total	3	115	119	1	53	54	2	42	44	4	51	55

Table 7 (cont'd)

Total length (cm)	Set no. 53 M	53 F	53 T	54 M	54 F	54 T	55 M	55 F	55 T	56 M	56 F	56 T
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	1	1	-	-	-	-	-	-
2	-	-	-	-	0	0	-	-	-	-	-	-
3	-	-	-	-	0	0	-	-	-	-	-	-
4	-	-	-	-	0	0	-	1	1	1	2	3
5	-	-	-	-	0	0	-	0	0	0	1	1
6	-	-	-	-	0	0	-	0	0	0	0	0
7	-	2	2	-	0	0	-	1	1	0	1	1
8	-	0	0	-	0	0	-	1	1	0	1	1
9	-	0	0	-	1	1	-	0	0	0	0	0
60	-	2	2	-	2	2	-	2	2	0	0	0
1	-	0	0	-	0	0	-	2	2	1	0	1
2	-	1	1	-	0	0	1	2	3	0	0	0
3	-	0	0	-	0	0	-	0	0	0	1	1
4	-	0	0	-	1	1	-	0	0	0	1	1
5	-	1	1	-	0	0	-	1	1	0	0	0
6	-	0	0	-	1	1	-	1	1	0	0	0
7	-	1	1	-	1	1	-	0	0	0	2	2
8	-	0	0	-	1	1	-	0	0	0	0	0
9	-	1	1	-	1	1	-	1	1	0	0	0
70	-	1	1	-	1	1	-	0	0	0	0	0
1	-	0	0	-	0	0	-	0	0	0	0	0
2	-	2	2	-	0	0	-	0	0	0	1	1
3	-	0	0	-	0	0	-	0	0	0	1	1
4	-	0	0	-	0	0	-	1	1	0	2	2
5	-	1	1	-	0	0	-	0	0	0	0	0
6	-	0	0	-	1	1	-	0	0	0	0	0
7	-	1	1	-	0	0	-	1	1	0	2	2
8	-	1	1	1	0	1	-	0	0	0	0	0
9	-	0	0	0	2	2	-	0	0	0	0	0
80	-	0	0	0	0	0	-	0	0	0	1	1
1	-	0	0	1	1	2	-	4	4	0	1	1
2	-	1	1	-	0	0	-	0	0	0	1	1
3	-	1	1	-	0	0	-	0	0	0	1	1
4	-	0	0	-	0	0	-	1	1	0	0	0
5	-	1	1	-	1	1	-	0	0	1	1	2
6	1	0	1	-	1	1	-	1	1	-	2	2
7	-	4	4	-	2	2	-	0	0	-	1	1
8	-	2	2	-	0	0	-	0	0	-	2	2
9	-	0	0	-	2	2	-	0	0	-	2	2

Table 7 (cont'd)

Total length (cm)	Set no. 53 M	53 F	53 T	54 M	54 F	54 T	55 M	55 F	55 T	56 M	56 F	56 T
90	-	0	0	-	1	1	-	0	0	-	0	0
1	-	2	2	-	0	0	-	0	0	-	1	1
2	-	0	0	-	4	4	-	1	1	-	1	1
3	-	1	1	-	3	3	-	1	1	-	4	4
4	-	1	1	-	1	1	-	0	0	-	1	1
5	-	0	0	-	4	4	-	1	1	-	0	0
6	-	0	0	-	1	1	-	0	0	-	1	1
7	-	0	0	-	1	1	-	0	0	-	0	0
8	-	0	0	-	0	0	-	2	2	-	0	0
9	-	0	0	-	2	2	-	1	1	-	3	3
100	-	1	1	-	3	3	-	1	1	-	8	8
1	-	0	0	-	1	1	-	1	1	-	3	3
2	-	1	1	-	0	0	-	0	0	-	3	3
3	-	0	0	-	1	1	-	1	1	-	0	0
4	-	1	1	-	0	0	-	1	1	-	2	2
5	-	0	0	-	1	1	-	0	0	-	2	2
6	-	0	0	-	0	0	-	0	0	-	1	1
7	-	1	1	-	0	0	-	0	0	-	1	1
8	-	0	0	-	0	0	-	1	1	-	0	0
9	-	1	1	-	1	1	-	-	-	-	0	0
110	-	-	-	-	0	0	-	-	-	-	1	1
11	-	-	-	-	1	1	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	32	33	2	45	47	1	31	32	3	59	62

Table 7 (cont'd)

Total length (cm)	Set no. 57 M	57 F	57 T	58 M	58 F	58 T	59 M	59 F	59 T	60 M	60 F	60 T
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	1	1	-	-	-	-	-	-	-	-	-
1	-	0	0	-	-	-	-	-	-	-	-	-
2	-	0	0	-	-	-	-	-	-	-	-	-
3	-	0	0	-	-	-	-	-	-	-	-	-
4	-	0	0	-	1	1	-	-	-	-	-	-
5	-	0	0	-	0	0	-	-	-	-	-	-
6	-	1	1	-	0	0	-	-	-	-	-	-
7	-	1	1	-	0	0	-	-	-	-	-	-
8	-	0	0	-	0	0	-	-	-	-	-	-
9	-	1	1	-	0	0	-	-	-	-	-	-
60	-	0	0	-	0	0	-	-	-	-	-	-
1	-	0	0	-	0	0	-	-	-	-	-	-
2	-	2	2	-	0	0	-	-	-	-	-	-
3	-	0	0	-	0	0	-	2	2	1	-	1
4	1	0	1	-	0	0	-	0	0	0	1	1
5	0	2	2	-	0	0	-	0	0	0	0	0
6	0	1	1	-	0	0	-	0	0	0	0	0
7	0	0	0	1	1	2	-	0	0	0	0	0
8	0	2	2	0	0	0	-	0	0	0	0	0
9	0	3	3	0	1	1	-	0	0	0	0	0
70	0	0	0	0	2	2	-	0	0	0	1	1
1	1	1	2	0	0	0	-	0	0	0	0	0
2	0	0	0	0	0	0	-	0	0	0	1	1
3	1	0	1	0	0	0	-	1	1	0	0	0
4	1	2	3	0	0	0	-	0	0	0	0	0
5	0	3	3	0	1	1	-	0	0	0	0	0
6	3	1	4	0	2	2	-	1	1	0	0	0
7	0	1	1	0	0	0	-	0	0	1	0	1
8	1	2	3	0	2	2	-	0	0	0	0	0
9	0	1	1	0	1	1	-	0	0	0	0	0
80	1	1	2	0	0	0	-	0	0	0	1	1
1	1	1	2	0	1	1	-	1	1	0	0	0
2	0	3	3	0	0	0	-	1	1	0	1	1
3	1	2	3	1	1	2	-	1	1	0	0	0
4	0	3	3	-	1	1	1	0	1	0	0	0
5	0	4	4	-	0	0	-	0	0	1	2	3
6	0	2	2	-	0	0	-	1	1	1	2	3
7	1	1	2	-	2	2	-	3	3	-	1	1
8	-	6	6	-	2	2	-	4	4	-	2	2
9	-	3	3	-	2	2	-	1	1	-	1	1

Table 7 (cont'd)

Total length (cm)	Set no. 57 M	57 F	57 T	58 M	58 F	58 T	59 M	59 F	59 T	60 M	60 F	60 T
90	-	2	2	-	3	3	-	0	0	-	2	2
1	-	4	4	-	1	1	-	2	2	-	1	1
2	-	5	5	-	1	1	-	0	0	-	1	1
3	-	4	4	-	1	1	-	2	2	-	5	5
4	-	4	4	-	1	1	-	1	1	-	2	2
5	-	4	4	-	0	0	-	4	4	-	0	0
6	-	4	4	-	3	3	-	4	4	-	3	3
7	-	3	3	-	0	0	-	1	1	-	2	2
8	-	5	5	-	2	2	-	3	3	-	1	1
9	-	5	5	-	0	0	-	2	2	-	3	3
100	-	7	7	-	2	2	-	3	3	-	0	0
1	-	2	2	-	1	1	-	1	1	-	3	3
2	-	3	3	-	0	0	-	1	1	-	2	2
3	-	2	2	-	1	1	-	2	2	-	0	0
4	-	3	3	-	1	1	-	3	3	-	2	2
5	-	0	0	-	1	1	-	2	2	-	2	2
6	-	2	2	-	3	3	-	1	1	-	1	1
7	-	1	1	-	0	0	-	3	3	-	3	3
8	-	2	2	-	1	1	-	0	0	-	0	0
9	-	-	-	-	0	0	-	1	1	-	0	0
110	-	-	-	-	1	1	-	1	1	-	0	0
11	-	-	-	-	1	1	-	-	-	-	0	0
12	-	-	-	-	1	1	-	-	-	-	1	1
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
Unkn	-	-	-	-	-	1	-	-	-	-	-	-
Total	12	113	125	2	45	48	1	53	54	4	48	52

Table 7 (cont'd)

Total length (cm)	Set no. 61 M	61 F	61 T	62 + 63 M	62 + 63 F	62 + 63 T
49	-	-	-	-	-	-
50	-	-	-	-	-	-
1	-	-	-	1	-	1
2	-	-	-	0	-	0
3	-	-	-	0	-	0
4	-	-	-	0	-	0
5	-	-	-	0	-	0
6	-	-	-	2	-	2
7	-	-	-	0	-	0
8	-	-	-	0	1	1
9	-	-	-	0	2	2
60	-	-	-	1	0	1
1	-	-	-	0	0	0
2	-	-	-	1	0	1
3	-	-	-	1	1	2
4	-	-	-	0	0	0
5	-	-	-	0	0	0
6	-	-	-	0	0	0
7	-	-	-	0	1	1
8	-	-	-	2	0	2
9	-	-	-	2	0	2
70	-	-	-	2	2	4
1	-	-	-	1	1	2
2	1	-	1	2	1	3
3	0	-	0	4	1	5
4	1	-	1	2	1	3
5	1	1	2	3	0	3
6	1	1	2	4	3	7
7	-	0	0	3	1	4
8	-	0	0	2	0	2
9	-	0	0	5	2	7
80	-	0	0	2	2	4
1	-	0	0	2	3	5
2	-	0	0	3	2	5
3	-	0	0	0	4	4
4	-	0	0	1	1	2
5	-	0	0	2	1	3
6	-	0	0	2	1	3
7	-	0	0	-	1	1
8	-	1	1	-	2	2
9	-	0	0	-	0	0

Table 7 (cont'd)

Total length (cm)	Set no. 61 M	61 F	61 T	62 + 63 M	62 + 63 F	62 + 63 T
90	-	1	1	-	0	0
1	-	2	2	-	0	0
2	-	4	4	-	0	0
3	-	0	0	-	2	2
4	-	0	0	-	1	1
5	-	3	3	-	2	2
6	-	1	1	-	0	0
7	-	1	1	-	0	0
8	-	1	1	-	1	1
9	-	0	0	-	1	1
100	-	2	2	-	2	2
1	-	1	1	-	1	1
1	-	0	0	-	3	3
3	-	2	2	-	0	0
4	-	0	0	-	2	2
5	-	0	0	-	1	1
6	-	0	0	-	1	1
7	-	0	0	-	0	0
8	-	0	0	-	0	0
9	-	0	0	-	1	1
110	-	0	0	-	-	-
11	-	0	0	-	-	-
12	-	0	0	-	-	-
13	-	0	0	-	-	-
14	-	0	0	-	-	-
15	-	1	1	-	-	-
16	-	-	-	-	-	-
17	-	-	-	-	-	-
18	-	-	-	-	-	-
119	-	-	-	-	-	-
Unkn	-	-	-	-	-	-
Total	4	22	26	50	52	102

Table 7 (cont'd)

Total length (cm)	Total tagged M	Total tagged F	Total tagged T	Total untagged M	Total untagged F	Total untagged T	Total caught M	Total caught F	Total caught T
49	1	-	1	-	-	-	1	-	1
50	0	1	1	-	1	1	0	2	2
1	1	1	2	-	1	1	1	2	3
2	2	0	2	-	0	0	2	0	2
3	2	0	2	-	0	0	2	0	2
4	4	7	11	-	0	0	4	7	11
5	2	2	4	1	0	1	3	2	5
6	5	9	14	0	2	2	5	11	16
7	4	10	14	1	0	1	5	10	15
8	4	7	11	0	0	0	4	7	11
9	6	17	23	0	0	0	6	17	23
60	9	21	30	0	1	1	9	22	31
1	10	10	20	0	0	0	10	10	20
2	15	21	36	1	2	3	16	23	39
3	22	13	35	0	2	2	22	15	37
4	19	17	36	2	3	5	21	20	41
5	15	19	34	2	2	4	17	21	38
6	20	23	43	0	1	1	20	24	44
7	20	27	47	2	2	4	22	29	51
8	33	21	54	3	3	6	36	24	60
9	29	30	59	0	2	2	29	32	61
70	42	28	70	4	1	5	46	29	75
1	39	20	59	5	1	6	44	21	65
2	45	34	79	4	2	6	49	36	85
3	47	30	77	3	4	7	50	34	84
4	66	28	94	6	4	10	72	32	104
5	60	30	90	7	2	9	67	32	99
6	75	30	105	4	1	5	79	31	110
7	70	35	105	18	4	22	88	39	127
8	68	39	107	14	2	16	82	41	123
9	71	34	105	11	3	14	82	37	119
80	67	35	102	12	3	15	79	38	117
1	62	43	105	8	3	11	70	46	116
2	54	37	91	4	2	6	58	39	97
3	37	38	75	7	2	9	44	40	84
4	38	40	78	3	7	10	41	47	88
5	34	35	69	0	6	6	34	41	75
6	33	44	77	3	3	6	36	47	83
7	20	43	63	2	1	3	22	44	66
8	18	47	65	3	2	5	21	49	70
9	19	35	54	2	1	3	21	36	57

Table 7 (cont'd)

Total length (cm)	Total tagged M	Total tagged F	Total tagged T	Total untagged M	Total untagged F	Total untagged T	Total caught M	Total caught F	Total caught T
90	9	30	39	3	3	6	12	33	45
1	6	56	62	1	3	4	7	59	66
2	4	47	51	0	1	1	4	48	52
3	1	78	79	0	0	0	1	78	79
4	2	61	63	1	2	3	3	63	66
5	2	68	70	0	2	2	2	70	72
6	-	71	71	0	2	2	0	73	73
7	-	66	66	1	5	6	1	71	72
8	-	95	95	-	1	1	-	96	96
9	-	91	91	-	0	0	-	91	91
100	-	104	104	-	2	2	-	106	106
1	-	74	74	-	4	4	-	78	78
2	-	79	79	-	2	2	-	81	81
3	-	73	73	-	1	1	-	74	74
4	-	73	73	-	2	2	-	75	75
5	-	55	55	-	0	0	-	55	55
6	-	61	61	-	0	0	-	61	61
7	-	60	60	-	0	0	-	60	60
8	-	49	49	-	3	3	-	52	52
9	-	35	35	-	0	0	-	35	35
110	-	18	18	-	1	1	-	19	19
11	-	10	10	-	1	1	-	11	11
12	-	9	9	-	0	0	-	9	9
13	-	13	13	-	1	1	-	14	14
14	-	12	12	-	-	-	-	12	12
15	-	5	5	-	-	-	-	5	5
16	-	2	2	-	-	-	-	2	2
17	-	0	0	-	-	-	-	0	0
18	-	0	0	-	-	-	-	0	0
119	-	3	3	-	-	-	-	3	3
Unkn	-	-	3	-	-	-	-	-	3
Total	1212	2359	3574	138	112	250	1350	2471	3824*

*Does not include 21 fish retained for tag performance.

Table 8. Length frequency of tagged dogfish by area, Central Strait, November 1981.

Total length	Area											
	Northumberland Channel			Howe Sound			Thormanby Island			Jervis Inlet		
(cm)	M	F	T	M	F	T	M	F	T	M	F	T
49	-	-	-	1	-	1	-	-	-	-	-	-
50	-	-	-	0	-	0	-	-	-	-	1	1
1	1	-	1	0	-	0	-	-	-	-	1	1
2	0	-	0	1	-	1	-	-	-	1	0	1
3	0	-	0	2	-	2	-	-	-	0	0	0
4	0	-	0	3	-	3	-	-	-	1	7	8
5	0	-	0	1	-	1	-	-	-	1	2	3
6	2	-	2	3	3	6	-	-	-	0	6	6
7	2	-	2	2	2	4	-	-	-	0	8	8
8	0	1	1	3	1	4	-	-	-	1	5	6
9	0	3	3	5	3	8	-	-	-	1	11	12
60	1	0	1	8	4	12	-	-	-	0	17	17
1	0	0	0	8	3	11	-	-	-	2	7	9
2	4	3	7	8	6	14	-	-	-	3	12	15
3	9	3	12	12	2	14	-	-	-	1	8	9
4	1	2	3	17	7	24	-	-	-	1	8	9
5	2	2	4	13	7	20	-	-	-	0	10	10
6	3	6	9	17	10	27	-	-	-	0	7	7
7	4	8	12	15	12	27	-	-	-	1	7	8
8	7	6	13	25	10	35	-	-	-	1	5	6
9	6	7	13	23	10	33	-	-	-	0	13	13
70	14	10	24	27	10	37	-	-	-	1	8	9
1	15	7	22	23	8	31	-	-	-	1	5	6
2	10	16	26	31	9	40	-	-	-	4	9	13
3	18	13	31	28	10	38	-	-	-	1	7	8
4	21	8	29	41	12	53	-	-	-	4	8	12
5	15	10	25	43	8	51	-	-	-	2	12	14
6	15	10	25	53	9	62	1	-	1	6	11	17
7	18	15	33	50	9	59	0	1	1	2	10	12
8	21	18	39	45	10	55	0	0	0	2	11	13
9	21	11	32	50	6	56	0	1	1	0	16	16
80	12	17	29	51	11	62	0	0	0	4	7	11
1	9	18	27	51	6	57	0	0	0	2	19	21
2	10	13	23	41	6	47	1	0	1	2	18	20
3	1	14	15	31	7	38	-	0	0	5	13	18
4	2	15	17	35	6	41	-	0	0	1	19	20
5	3	12	15	29	7	36	-	0	0	2	16	18
6	2	15	17	29	8	37	-	0	0	2	21	23
7	1	9	10	17	6	23	-	0	0	2	26	28
8	1	12	13	17	4	21	-	0	0	-	30	30
9	0	5	5	19	7	26	-	0	0	-	23	23

Table 8 (cont'd)

Total lengtn	Area											
	Northumberland Channel			Howe Sound			Thormanby Island			Jervis Inlet		
(cm)	M	F	T	M	F	T	M	F	T	M	F	T
90	0	5	5	9	4	13	-	2	2	-	19	19
1	1	7	8	5	14	19	-	2	2	-	33	33
2	-	4	4	4	6	10	-	1	1	-	36	36
3	-	9	9	1	15	16	-	4	4	-	50	50
4	-	11	11	2	12	14	-	3	3	-	35	35
5	-	13	13	2	7	9	-	3	3	-	45	45
6	-	8	8	-	17	17	-	4	4	-	42	42
7	-	9	9	-	20	20	-	5	5	-	32	32
8	-	13	13	-	23	23	-	8	8	-	51	51
9	-	11	11	-	17	17	-	6	6	-	57	57
100	-	8	8	-	23	23	-	8	8	-	65	65
1	-	11	11	-	19	19	-	7	7	-	37	37
2	-	12	12	-	21	21	-	3	3	-	43	43
3	-	7	7	-	22	22	-	4	4	-	40	40
4	-	10	10	-	17	17	-	8	8	-	38	38
5	-	5	5	-	10	10	-	8	8	-	32	32
6	-	9	9	-	13	13	-	4	4	-	33	33
7	-	5	5	-	25	25	-	5	5	-	26	26
8	-	3	3	-	15	15	-	1	1	-	26	26
9	-	5	5	-	14	14	-	0	0	-	15	15
110	-	1	1	-	9	9	-	0	0	-	8	8
11	-	1	1	-	3	3	-	0	0	-	6	6
12	-	2	2	-	2	2	-	2	2	-	3	3
13	-	0	0	-	6	6	-	3	3	-	4	4
14	-	1	1	-	4	4	-	1	1	-	6	6
15	-	2	2	-	2	2	-	0	0	-	1	1
16	-	1	1	-	-	-	-	0	0	-	1	1
17	-	-	-	-	-	-	-	0	0	-	0	0
18	-	-	-	-	-	-	-	0	0	-	0	0
119	-	-	-	-	-	-	-	1	1	-	2	2
Total	252	462	714	901	579	1480	2	108	110	57	1210	1267

Table 9. Catch per unit effort of dogfish by area fished.

Area	Date	No. of dogfish	CPUE dogfish/ 1000 hooks	CPUE dogfish > 71 cm/ 1000 hooks
	Campbell River area			
South of Cape Mudge	April 24-May 22	3177	410.7	337.3
Marina Is.	May 11-26	175	117.6	104.8
Oyster Bay	May 14-15	450	250.0	150.0
	Central Strait area			
Northumberland Channel & Entrance Is.	Nov 9-11, 25	796	195.3	166.9
Howe Sound	Nov 12-16	1629	269.7	231.1
N. of Thormanby Is.	Nov 18-19	112	76.5	76.5
Jervis Inlet (Sinclair Bank) (Stillwater Bay) (off Cape Cockburn)	Nov 20-24	1309	162.2	144.5

Table 10. Summary of the incidental catch.

	Campbell River April-May 1981	Central Strait Nov 1981
Hooks fished	11,023	19,650
Dogfish	3,802	3,845
Canary rockfish	-	2
Copper rockfish	2	-
Greenstriped rockfish	-	5
Quillback rockfish	24	8
Yelloweye rockfish	55	115
Rockfish sp.	2	-
Sablefish	-	6
Hake	-	3
Lingcod	2	2
Pacific cod	3	4
Petrale sole	-	1
Ratfish	109	75
Sixgill shark	-	2
Skate	3	2
Octopus	1	-
Starfish	149	3
Other	30	4
Total	380	232

Table 11. Summary of dogfish tag releases and OTC injections from 1978-1981.

Cruise	Numbers tagged			OTC injections			Series numbers		Area
	M	F	T	Inter-muscular	Intra peritoneal	Control			
April-June 1978	624	1,294	1,918				Petersen Discs DF41001-42599 DF42800-42899	Anchors X01712-X0399	Campbell River area
April-May 1979	1,668	1,543	3,214				DF42600-42799 42900-46299		Campbell River area
November 1979	547	781	1,328				Modified Petersen Discs DF59000-60338		Central Strait of Georgia
February 1980	1,244	307	1,551				DF60367-61928		Southern Strait of Georgia
March 1980	2,399	809	3,210				DF61929-65156		S. Central Strait of Georgia
April-May 1980	1,752	969	2,721	1,460	0	1,261	DF65200-65999 137000-138942		Campbell River area
June-July 1980	272	791	1,064	no injection			Petersen Discs DF46300-46810 Modified Petersen Discs DF138892-139499		Dixon Entrance, Q.C. Sound Hecate Strait
April-May 1981	2,733	661	3,394	no injection			DF15700-160482 160500-160530		Campbell River area
November 1981	1,212	2,359	3,574	2,718	854	2	DF160484-160499 160531-161999 DF8242000-8244173		Central Strait of Georgia
Total	12,451	9,514	21,974	4,178	854	1,263			

Table 12. Recoveries from the Central Strait tagging, November 1981 (all fish injected with OTC).

Tag number	Release 1981			Recovery 1981			Location	Minimum distance covered (km)	Days at large	Methods of recapture
	Date	Length (cm)	Sex	Date	Length (cm)	Whole fish returned				
DF160824	Nov 10	98.3	F	Nov	-	no	Snake Is.	0	-10	longline
DF8242993	Nov 20	104.5	F	Nov 27	104.1	yes	Sinclair Bank	10	7	longline
DF8243187	Nov 21	104.5	F	Nov 29	102.0[1]	yes	Trail Is.	49	8	longline
DF8242802	Nov 20	101.2	F	Nov 29	101.0[1]	yes	Trail Is.	45	9	longline
DF160770	Nov 10	98.2	F	Dec 3	99.1	yes	Constance Bank	124	23	trawl
DF8242579	Nov 16	74.7	F	Dec 4	74.3	yes	Long Bay, Gambier Is.	10	18	longline
DF8243076	Nov 21	109.0	F	Dec 16	107.6[1]	yes	Sechelt	56	25	longline
DF161568	Nov 13	107.1	F	Dec	-	yes	-	-	-32	longline/plant recovery
DF8242983	Nov 20	104.1	F	Dec	-	yes	-	-	25	plant recovery
DF8243244	Nov 21	98.5	F	Dec	97.2	yes	-	-	24	plant recovery
DF8244076	Nov 25	101.7	F	Dec	101.7	yes	-	-	20	plant recovery
DF161745	Nov 13	113.5	F	Dec 16	-	no	-	-	-30	plant recovery
DF8242756	Nov 19	95.6	F	Dec 23	-	yes	off Blaine	110	34	longline

[1]Previously frozen.

Table 13. Recoveries from the Campbell River tagging, April-May 1981.

Tag number	Release 1981			Recovery 1981			Location	Minimum distance covered (km)	Days at large	Methods of recapture
	Date	Length (cm)	Sex	Date	Length (cm)	Whole fish returned				
DF157107	April 24	105.4	F	May 11	104.5	yes	Cape Mudge	0	17	longline tagging cruise
DF157738	May 5	61.5	M	July 2	59.4[1]	yes	Campbell River	15	58	sport
DF159680	May 20	84.0	M	July 15	-	no	Port Neville	102	56	salmon gillnet
DF159950	May 20	83.2	M	July 22	-	no	Francisco Pt.	5	63	sport
DF158370	May 12	64.2	M	Aug 17	-	no	Granite Bay	41	97	salmon gillnet
DF157952	May 7	57.8	M	Aug 23	56.4[1]	yes	Granite Pt.	37	108	salmon gillnet
DF159013	May 15	71.9	M	Aug 30	-	no	Cattle Pt.	235	107	salmon gillnet
DF159238	May 19	76.6	M	Aug 24	74.5[1]	yes	San Juan Is. Shelter Pt.	6	97	sport
DF158261	May 11	107.8	F	Oct	-	yes	-	-	~150	plant recovery
DF157125	April 24	84.2	M	Nov 2	-	no	East of Flora Is.	66	192	salmon gillnet
DF158349	May 12	106.7	F	Nov 18	107.7	yes	off Sechelt	120	190	longline

[1]Previously frozen.

Table 14. Recoveries from the Gulf Islands-Central Strait tagging, February 1980.

Tag number	Release 1980			Recovery 1981			Location	Minimum distance covered (km)	Days at large	Methods of recapture
	Date	Length (cm)	Sex	Date	Length (cm)	Whole fish returned				
DF61463	Feb 17	75.8	M	Jan 11	-	no	Alden Bank	38	329	trawl
DF61360	Feb 17	76.2	M	Jan 25	-	no	Spieden Is.-Flat Is.	45	343	longline
DF61153	Feb 16	102.0	F	Feb	-	no	Boundary Pass	34	~365	longline
DF60768	Feb 14	82.8	M	Feb 12-14	83.2	yes	Chrome Is.	178	365	trawl
DF61850	Feb 18	84.3	M	Mar 3	-	no	Middle Bank	70	379	-
DF61455	Feb 17	87.2	M	Mar	-	no	US zone, Strait of Georgia	~14	~392	trawl
DF60833	Feb 15	98.2	F	April 10	-	no	Port Townsend	63	420	longline
DF61624	Feb 17	86.4	M	June 8	-	no	Active Pass	0	477	sport
DF61190	Feb 16	83.9	M	June 23	-	no	Comox Bell Buoy	143	493	sport
DF61529	Feb 17	80.1	F	July 3	-	no	Pt. Roberts	20	502	trawl
DF60655	Feb 13	87.2	M	Aug 5	-	no	Bellingham Bay	83	539	salmon gillnet
DF61668	Feb 17	80.0	M	Sept 6	-	yes	Spieden Is.-East Pt.	24	567	sport
DF61135	Feb 16	81.2	M	~Sept 15	-	no	Tumbo Channel	21	~577	trawl
DF61280	Feb 16	94.4	M	~Sept 15	-	no	Tumbo Channel	21	~577	trawl
DF61450	Feb 17	87.6	M	~Sept 15	-	no	Tumbo Channel	21	~576	trawl
DF61842	Feb 18	86.3	M	~Sept 15	-	no	Tumbo Channel	21	~575	trawl
DF61801	Feb 18	94.8	M	~Nov	-	yes	-	-	~636	plant recovery
DF61152	Feb 16	85.6	M	~Nov	-	yes	-	-	~638	plant recovery
DF61533	Feb 17	103.2	F	Nov 23	103.1[1]	yes	Albert Head	67	645	trawl

[1]Previously frozen.

Table 15. Recoveries from the Central Strait tagging, March 1980.

Tag number	Release 1980			Recovery 1981			Location	Minimum distance covered (km)	Days at large	Methods of recapture
	Date	Length (cm)	Sex	Date	Length (cm)	Whole fish returned				
DF62375	March 13	83.0	M	Jan 19	-	no	Pt. Roberts Reef	64	312	trawl
DF63812	March 16	81.9	M	Feb 14	-	no	W of Porlier Pass	28	335	longline
DF63453	March 15	78.3	F	March 18	-	no	Pt. Whitehorn	71	367	trawl
DF65043	March 20	81.3	M	April 18	81.0[1]	yes	WCVI-Can-Am Boundary	272	394	salmon troll
DF64273	March 18	67.7	F	April 20	-	no	Northumberland Ch.	9	398	shrimp trawl
DF65020	March 20	101.1	F	May 6	-	no	Port Townsend	148	412	sport
DF62723	March 14	89.9	M	July 20	-	no	Canoe Pass	44	493	salmon gillnet
DF63241	March 18	87.8	M	July 21	-	no	Sand Heads	44	490	salmon gillnet
DF61934	March 12	87.6	M	August 5	-	no	5 mi. S of Tatoosh Is.	189	511	sport
DF63084	March 15	82.8	M	~Sept 15	-	no	Tumbo Ch.	69	549	trawl
DF63383	March 15	82.0	M	~Sept 15	-	no	Tumbo Ch.	63	549	trawl
DF65033	March 20	89.2	M	~Sept 15	-	no	Tumbo Ch.	63	544	trawl
DF63197	March 15	78.0	M	Oct 25	-	no	Paisley Is. Howe Sound	31	589	sport
DF64158	March 17	84.5	M	Oct 26	83.0	yes	Barfleur Pass Howe Sound	41	588	longline
DF63158	March 15	73.5	M	Nov 2	-	no	Hills Pass Bellingham Bay	106	597	salmon gillnet
DF64227	March 18	69.7	M	Nov 10	72.6	injected & released	Entrance Is.	0	602	longline tagging cruise
DF62181	March 13	83.9	M	Nov 19	-	yes	Horseshoe Bay Howe Sound	44	616	in herring pond
DF62628	March 13	81.4	M	Nov 20-23	80.2	yes	off Sechelt	25	619	longline
DF64735	March 19	83.9	M	Nov 23	83.4	yes	West Bay Howe Sound	41	614	longline
DF64673	March 19	81.5	M	Nov 25	81.3	injected & released	Northumberland Ch.	9	616	longline tagging cruise
DF65039	March 20	84.7	M	Nov	-	no	Snake Is.	17	~605	longline
DF64165	March 18	88.3	M	Nov	-	no	-	-	~607	plant recovery
DF61962	March 12	76.6	M	Dec 2	-	no	-	-	~630	plant recovery

Table 16. Recoveries from the Campbell River tagging, April-May 1980.

Tag number	OTC	Release 1980			Recovery 1981				Minimum distance covered (km)	Days at large	Methods of recapture
		Date	Length (cm)	Sex	Date	Length (cm)	Whole fish returned	Location			
DF137874	yes	May 9	74.6	M	Jan 8	74.0	yes	Deepwater Bay	29	244	trawl
DF65331	yes	April 22	106.9	F	Jan 8	105.0	yes	Deepwater Bay	39	261	trawl
DF65988	no	May 2	62.0	F	Jan 25	60.1[1]	yes	Ragged Is.	19	268	longline
DF138859	yes	May 15	107.0	F	Feb 12	-	no	Alden Bank	214	273	longline
DF65736	yes	April 24	101.1	F	Feb 12-14	102.4	yes	Chrome Is.	69	296	trawl
DF137528	no	May 7	73.8	M	March 17	-	no	Upper Bute Inlet	~102	314	sport
DF138339	no	May 13	83.1	F	April 2	-	no	Gower Pt.	135	324	trawl
DF138211	no	May 12	79.1	M	late April	-	no	Cape Mudge	0	~344	cod live boat
DF137335	yes	May 6	63.0	F	May 19	-	yes	Bute Inlet	85	378	prawn trap
DF65817	no	May 1	53.2	F	July 5	-	no	Freshwater Bay	272	430	sport
DF138734	yes	May 15	67.0	M	July 6	-	no	Robson Bight	130	417	salmon gillnet
DF137067	yes	May 6	75.4	F	July 19	-	no	NE Savory Is.	23	439	sport
DF138074	no	May 12	71.0	M	July 19	-	no	Discovery Passage	0	433	sport
DF65828	no	May 1	84.3	M	Nov 19	83.3	yes	off Sechelt	118	567	longline
DF137183	yes	May 6	76.7	F	Nov 30	75.6	yes	Uganda Pass	6	573	longline
DF65412	no	April 24	63.0	F	Dec	61.5[1]	yes	-	-	~600	plant recovery

[1]Previously frozen.

Table 17. Recoveries from Queen Charlotte Sound, Hecate Strait, Dixon Entrance tagging, June-July 1980.

Tag number	Release 1980			Recovery 1981			Location	Minimum distance covered (km)	Days at large	Methods of recapture
	Date	Length (cm)	Sex	Date	Length (cm)	Whole fish returned				
DF46634	June 26 IPHC 13-H 53°00' x 131°00'	78.8	F	Feb 11	76.7	yes	SE edge Goose Is. Ground	220	230	trawl
DF46732	June 29 IPHC 5-J 51°24' x 129°30'	101.1	F	July 15	100.0[1]	yes	Athlow Bay, Queen Charlotte Is.	363	381	salmon gillnet
DF46751	June 29 IPHC 5-J 51°24' x 129°30'	71.6	F	Aug 27	-	no	Deception Pass, Puget Sound	565	425	salmon gillnet
DF46484	June 23 IPHC 19-0 54°12' x 132°50'	92.0	F	Sept	89.7[1]	yes	unknown	-	-	plant recovery

[1]Previously frozen.

Table 18. Recoveries from Campbell River tagging, April-May, 1979.

Tag number	Release 1979			Recovery 1981			Location	Minimum distance covered (km)	Days at large	Methods of recapture
	Date	Length (cm)	Sex	Date	Length (cm)	Whole fish returned				
DF44142	May 8	102	F	Jan 8	102.0	yes	Deepwater Bay	33	611	trawl
DF44491	May 14	84	M	Jan 8	83.0	yes	Deepwater Bay	29	605	trawl
DF45548	May 16	93	F	Jan	92.0	yes	Deepwater Bay	39	603	trawl
DF42947	April 24	102	F	Jan 20-26	100.3	yes	Okisollo Channel	56	640	trawl
DF43906	May 1	86	M	Jan 20-26	86.0	yes	Deepwater Bay	37	633	trawl
DF43791	May 1	82	F	Jan 20-26	81.3	yes	Okisollo Channel	56	633	trawl
DF45442	May 16	96	F	Jan 20-26	100.1	yes	Okisollo Channel	56	618	trawl
DF44572	May 8	100	F	Jan 25	100.7	yes	Bates Beach	22	628	trawl
DF44655	May 11	82	M	March 12	82.0	yes	Campbell River	10	671	sport
DF44304	May 8	92	F	May 16	-	no	Cape Mudge	7	739	sport
DF45399	May 16	105	F	May 20	107.0	yes	Cape Mudge	0	735	longline/ tagging cruise
DF45999	May 18	79	M	May 20	79.8	yes	Cape Mudge	0	733	longline/ tagging cruise
DF45934	May 17	94	F	1st week June	-	no	Cape Mudge	9	~749	lingcod/ live boat
DF43231	April 26	87	F	June 17	-	no	Porlier Pass	158	783	trawl
DF43700	May 1	71	F	Aug 7	72.2[1]	yes	Harwood Is.	36	829	sport
DF42774	April 23	65	F	~Aug 10	65.0[1]	yes	Robson Bight	137	840	salmon gillnet
DF44925	May 15	61	F	Aug 10	57.6[1]	yes	Robson Bight	137	818	salmon gillnet
DF44260	May 9	52	M	Aug 17	-	no	Robson Bight	130	831	salmon gillnet
DF43638	April 30	108	F	Sept 4	105.1[1]	yes	Nelson Is.	74	858	sport
DF43579	April 30	83	M	~Sept 15	-	no	Tumbo Channel	206	869	trawl
DF46225	May 18	83	M	Sept 26	-	no	Campbell River	18	862	sport
DF44516	May 2	95	F	Oct 2	95.8[1]	yes	Deepwater Bay	39	884	sport
DF42787	April 23	73	F	~Oct 15	-	yes	Oyster Bay	16	~906	sport
DF43717	May 1	88	M	Oct 24	88.2	yes	White Is.	121	907	longline
DF44955	May 15	76	M	Nov 2	-	no	N Arm of Fraser River	152	902	salmon gillnet
DF43486	April 30	86	M	Nov 22	-	no	Pt. Roberts Reef	192	937	trawl
DF44939	May 15	104	F	Dec 13	104.5	yes	Grants Reef	24	943	longline
DF44455	May 11	102	F	Dec 14	100.6[1]	yes	Thormanby Is.	98	948	longline
DF44168	May 8	86	M	Dec	86.4[1]	yes	-	-	~952	plant recovery

[1]Previously frozen.

Table 19. Recoveries from Central Strait tagging, November 1979.

Tag number	Release 1979			Recovery 1981			Location	Minimum distance covered (km)	Days at large	Methods of recapture
	Date	Length (cm)	Sex	Date	Length (cm)	Whole fish returned				
DF59109	Nov 27	107	F	Jan 8	106.0	yes	Deepwater Bay	177	408	trawl
DF59711	Nov 28	99	F	Jan 20-26	-	yes	Deepwater Bay	125	421	trawl
DF59583	Nov 28	101	F	March 23	-	no	Pt. Roberts	102	481	trawl
DF59865	Nov 29	82	M	May 23	81.1[1]	yes	Quathiaski Cove	86	541	sport
DF59042	Nov 26	107	F	Aug 3	-	yes	-	-	616	plant recovery
DF59200	Nov 27	106	F	Aug 28	-	no	-	-	640	salmon seine
DF59441	Nov 28	74	F	Nov 9	72.5	yes	Secret Cove-Thormanby Is.	0	712	longline
DF59328	Nov 27	98	F	Nov 29	97.3	yes	Swanson Channel	49	733	trawl
DF59443	Nov 28	99	F	Nov 29	99.5	yes	Thormanby Is.	0	732	longline
DF59261	Nov 27	81	M	Nov	79.0	yes	-	-	-	plant recovery

[1]Previously frozen.

Table 20. Recoveries from Campbell River tagging, April-June 1978.

Tag number		Release 1978			Recovery 1981								
						Tags present							
Peterson disc	Anchor	Date	Length (cm)	Sex	Date	Disc	Anchor	Length (cm)	Whole fish returned	Location	Minimum distance covered (km)	Days at large	Method of recapture
DF41005	X02039	May 17	87	F	July 11	yes	no	88.9[1]	yes	Pendrell Sound	44	1152	sport
DF42207	X03543	June 2	80	F	Sept 4	yes	no	-	no	N of Active Pass	182	1191	sport
DF42362	X03116	June 1	79	F	Oct	yes	yes	-	no	-	-	1233	plant recovery
DF42470	X032234	June 1	98	F	Nov 19	yes	no	99.7	yes	N of Porlier Pass	165	1268	longline

[1]Previously frozen.

Table 21. Growth of recovered dogfish, 1978-1981 (does not include fish <1/2 year at large).

Years at large (days)	All recoveries				Recoveries not previously frozen			
	males		females		males		females	
	n	$\bar{x}$ growth (cm)	n	$\bar{x}$ growth (cm)	n	$\bar{x}$ growth (cm)	n	$\bar{x}$ growth (cm)
.5 (175-274)	8	-0.97	18	-0.33	6	-0.77	15	-0.13
1.0 (275-456)	14	-0.63	16	-1.12	7	-0.30	8	-0.63
1.5 (457-640)	16	-0.19	16	-0.11	12	+0.13	13	+0.30
2.0 (641-824)	3	-0.40	5	+0.04	3	-0.40	5	+0.04
2.5 (825-1008)	2	+0.30	5	-0.36	2	+0.30	1	+0.50
3.0 (1009-1192)			1	+1.9			-	-
3.5 (1193-1376)			1	+1.7			1	+1.7

Table 22. Summary of mean growth (length) of two groups of tagged dogfish held in captivity.

Actual measurements of Group 1

Date in tank	May 9/79		Dec 13/79		July 16/80		Jan 13/81		May 13/81		Jan 14/82	
Sex	n	$\bar{x}\ell$ (cm)	n	$\bar{x}\ell$ (cm)	n	$\bar{x}\ell$ (cm)	n	$\bar{x}\ell$ (cm)	n	$\bar{x}\ell$ (cm)	n	$\bar{x}\ell$ (cm)
Male	7	73.0	4	73.2	4	74.7	4	76.4	4	76.8	2	75.3
Female	7	93.4	4	97.9	3	96.6	3	96.8	3	95.7	1	102.4

Growth increment (cm) of Group 1

	0.5 year		1.0 year		1.5 year		2.0 year		2.5 year	
Sex	n	$\bar{x}$ growth in ℓ(cm)	n	$\bar{x}$ growth in ℓ(cm)	n	$\bar{x}$ growth in ℓ(cm)	n	$\bar{x}$ growth in ℓ(cm)	n	$\bar{x}$ growth in ℓ(cm)
Male	4	0.93	4	2.45	4	4.15	4	4.53	2	10.25
Female	4	1.68	3	2.27	3	2.50	3	-1.33	1	1.40

Actual Measurements of Group 2

Date in tank	May 16/79		Dec 13/79		July 16/80		Jan 13/81		May 13/81		Jan 14/82	
Sex	n	$\bar{x}\ell$ (cm)	n	$\bar{x}\ell$ (cm)	n	$\bar{x}\ell$ (cm)	n	$\bar{x}\ell$ (cm)	n	$\bar{x}\ell$ (cm)	n	$\bar{x}\ell$ (cm)
Male	6	79.3	4	76.6	3	76.4	1	87.1	0		0	
Female	18	80.2	15	81.5	10	82.1	7	84.8	3(4)	85.1	2	90.0

Growth Increments of Group 2

	0.5 year		1.0 year		1.5 year		2.0 year		2.5 year	
Sex	n	$\bar{x}$ growth in ℓ(cm)	n	$\bar{x}$ growth in ℓ(cm)	n	$\bar{x}$ growth in ℓ(cm)	n	$\bar{x}$ growth in ℓ(cm)	n	$\bar{x}$ growth in ℓ(cm)
Male	4	1.05	3	1.07	1	-0.90	0	-	0	-
Female	15	1.33	10	2.41	7	3.54	4	4.56	2	3.45

Table 23. Summary of mean growth (weight) of two groups of tagged dogfish held in captivity.

Actual weight of Group 1

	Dec 13/79		July 16/80		Jan 13/81		May 13/81		Jan 14/82	
Sex	n	$\bar{x}_W$ (gm)	n	$\bar{x}_W$ (gm)	n	$\bar{x}_W$ (gm)	n	$\bar{x}_W$ (gm)	n	$\bar{x}_W$ (gm)
Male	4	1573.3	4	1830.0	4	1963.3	4	1764.8	2	1503.0
Female	4	4734.5	3	4719.3	3	4895.3	3	4299.7	1	4905.0

Weight increment (gm) of Group 1

	0.5 year		1.0 year		1.5 year		2.0 year	
Sex	n	$\bar{x}$ growth in W(gm)	n	$\bar{x}$ growth in W(gm)	n	$\bar{x}$ growth in W(gm)	n	$\bar{x}$ growth in W(gm)
Male	4	256.8	4	390.0	4	191.5	2	269.5
Female	3	259.0	3	435.0	3	-160.7	1	171.0

Actual weight of Group 2

	Dec 13/79		July 16/80		Jan 13/81		May 13/81		Jan 14/82	
	n	$\bar{x}_W$ (gm)	n	$\bar{x}_W$ (gm)	n	$\bar{x}_W$ (gm)	n	$\bar{x}_W$ (gm)	n	$\bar{x}_W$ (gm)
Male	4	1807.3	3	1796.7	1	2041.0	0	-	0	-
Female	15	2502.3	10	2598.9	7	2814.9	3	2495.0	2	3048.0

Weight increments of Group 2

	0.5 year		1.0 year		1.5 year		2.0 year	
Sex	n	$\bar{x}$ growth in W(gm)	n	$\bar{x}$ growth in W(gm)	n	$\bar{x}$ growth in W(gm)	n	$\bar{x}$ growth in W(gm)
Male	3	67.3	1	-284.0	0	-	0	-
Female	10	-71.6	7	97.6	3	-18.7	2	-126.5

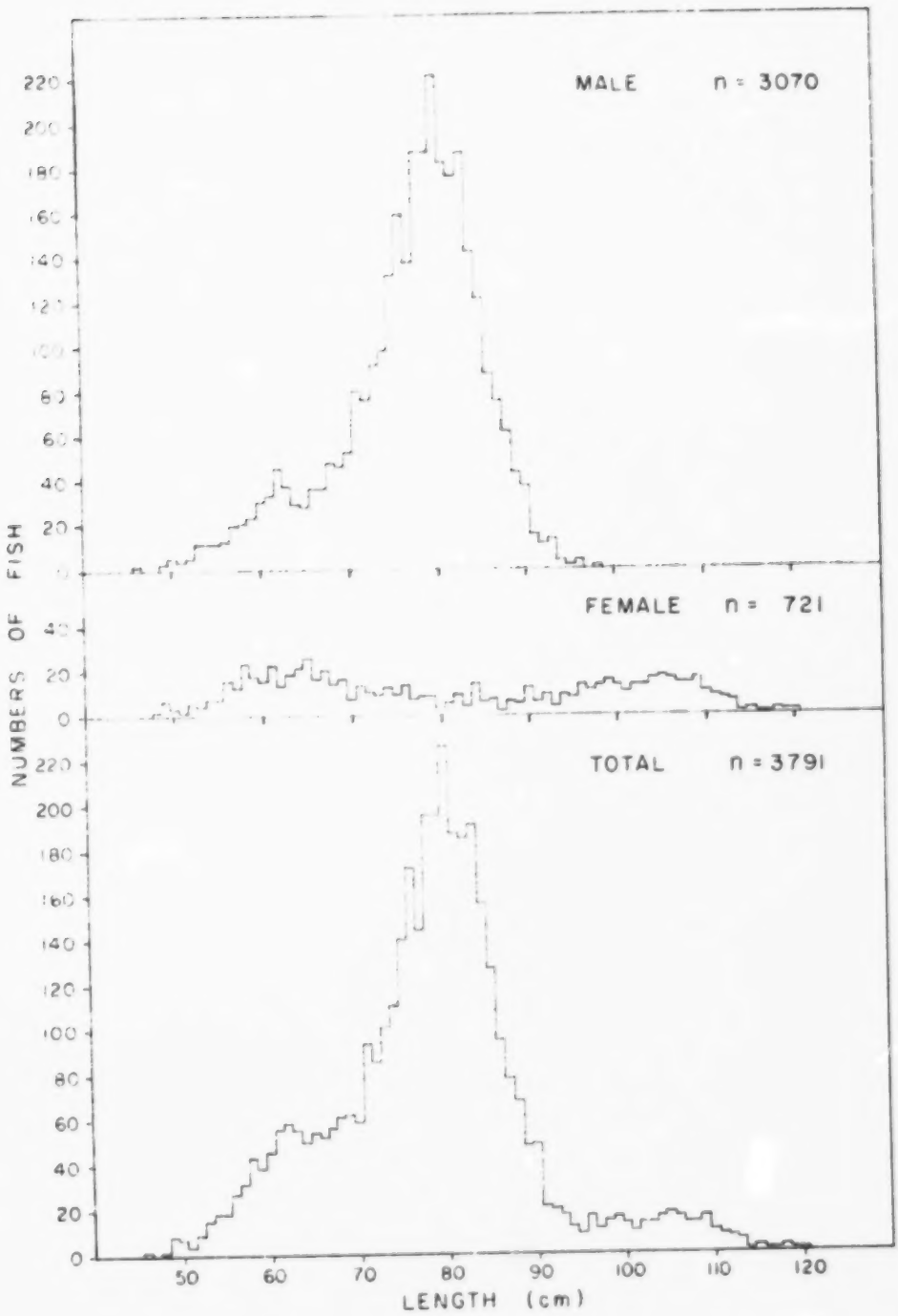

Fig. 1. Length frequency of dogfish captured from the Campbell River area, April-May 1981.

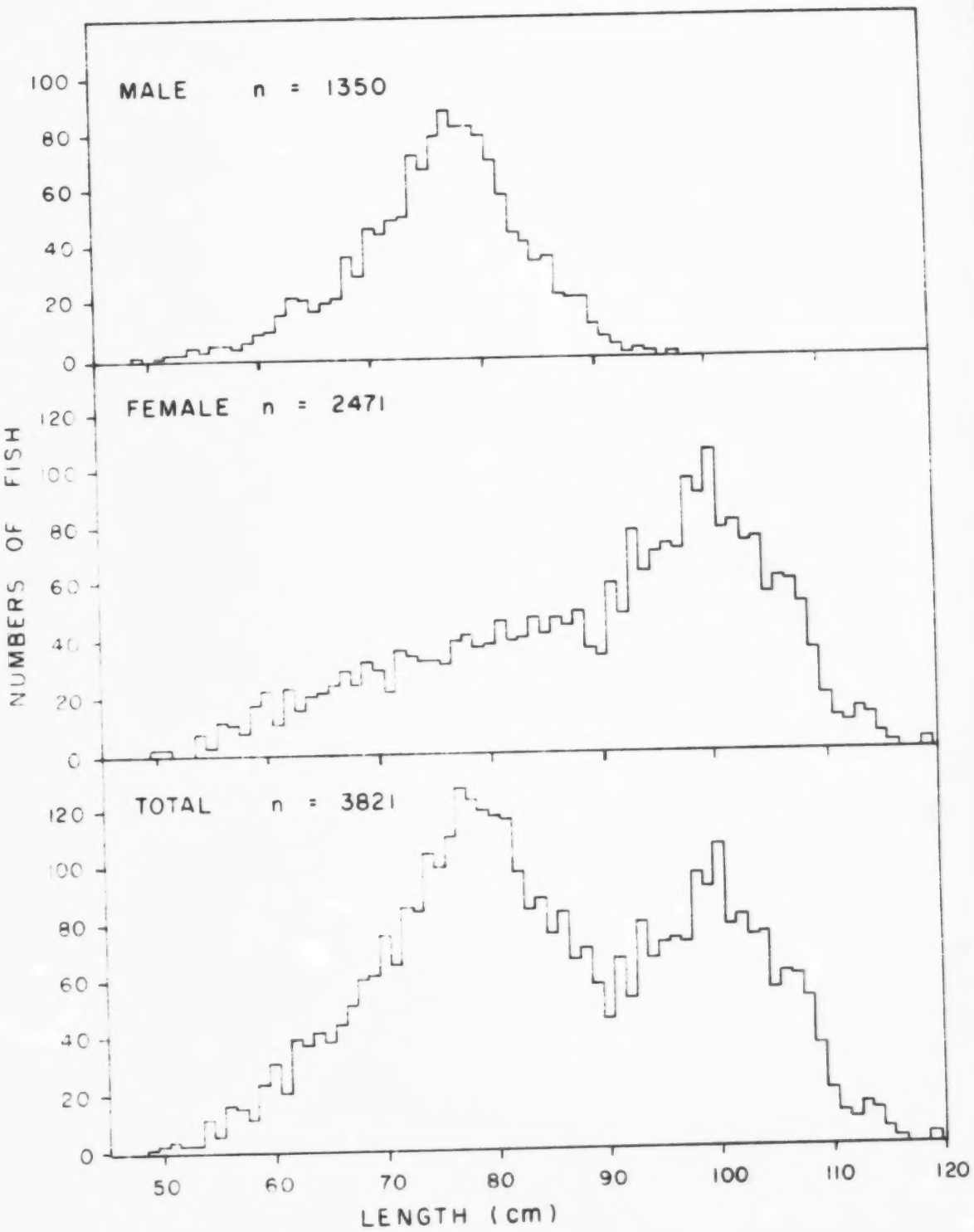

Fig. 2. Length frequency of dogfish captured from the Central Strait area, November 1981.

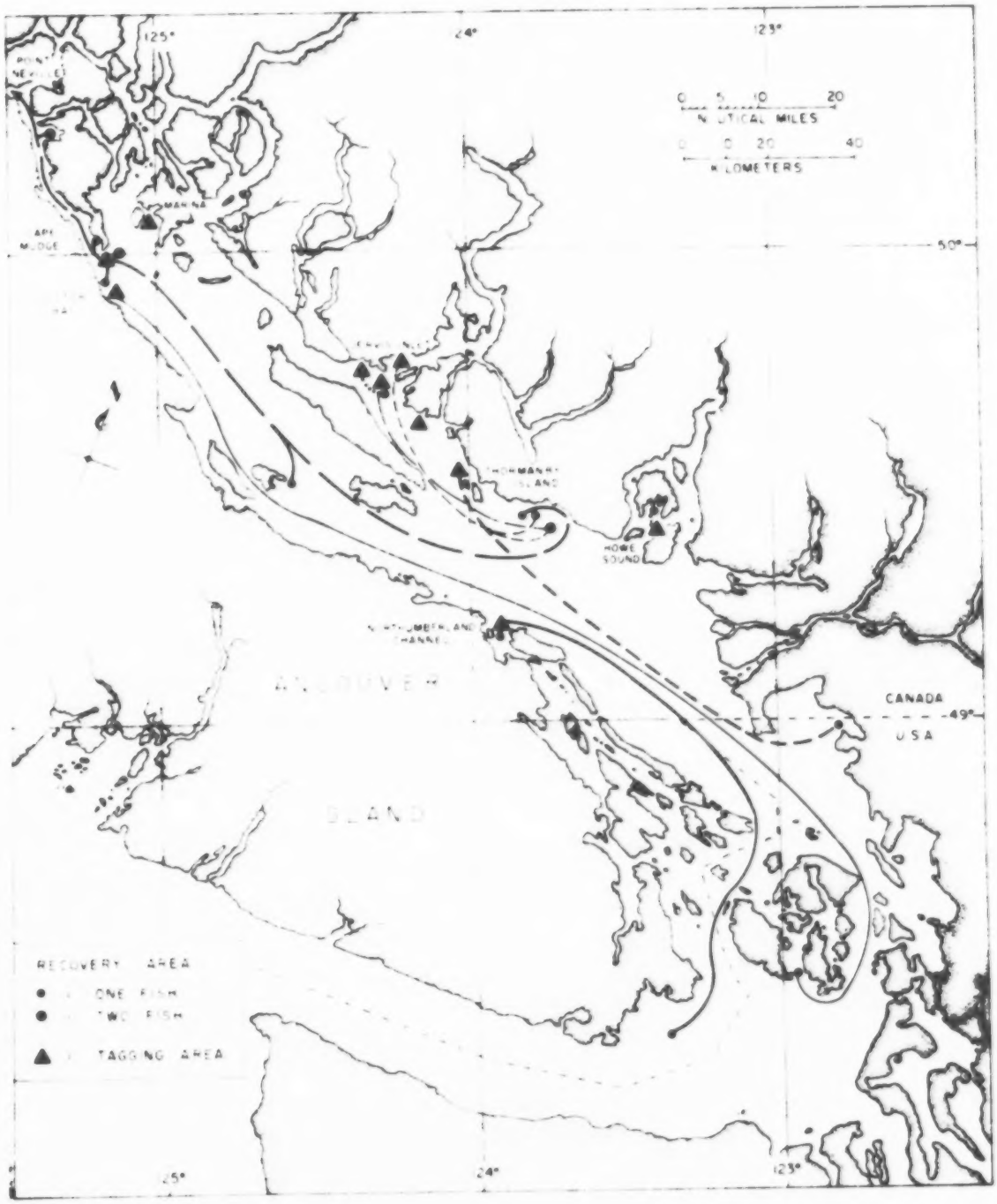

Fig. 3. Tag release and recovery locations, Strait of Georgia, 1981.

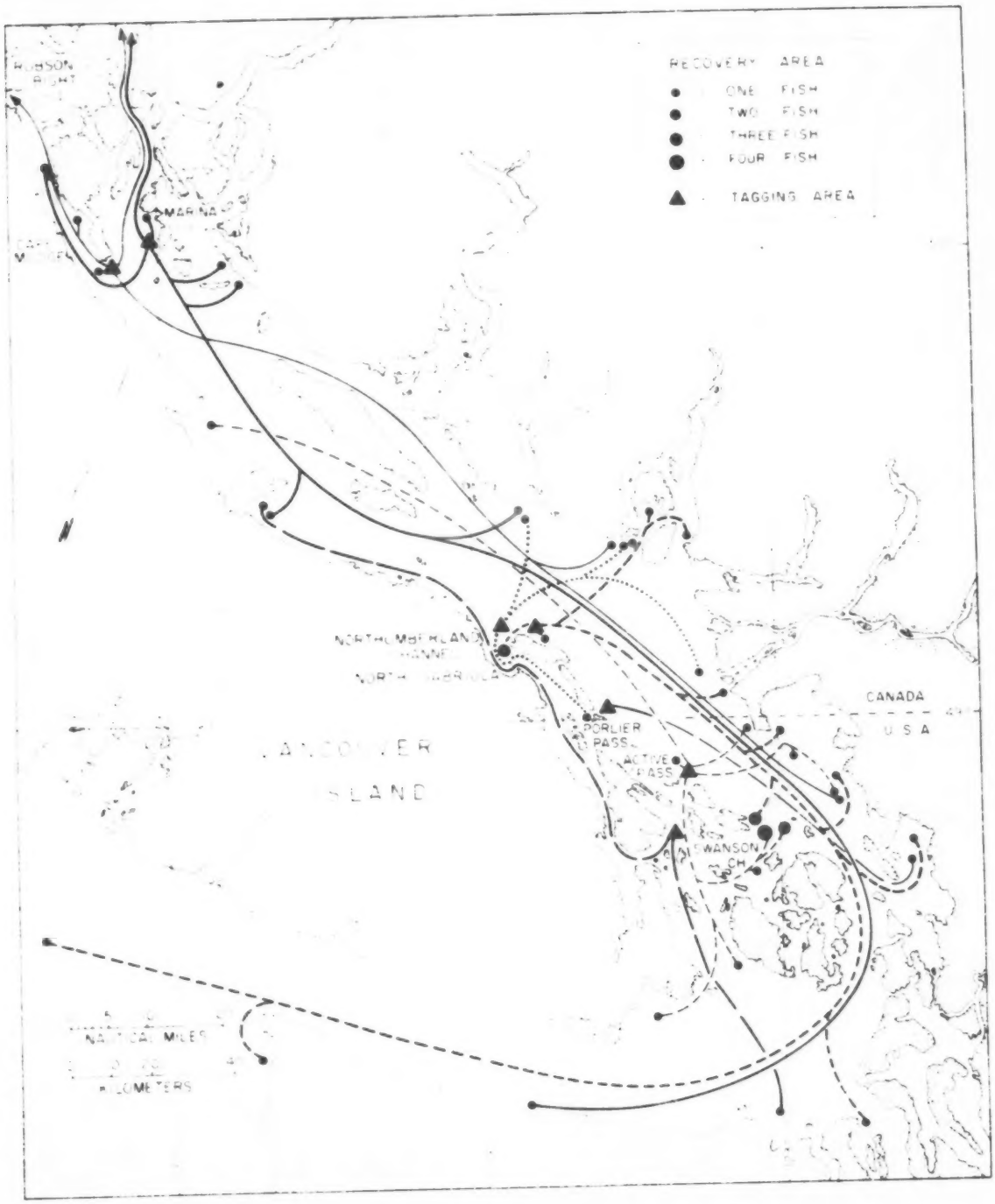

Fig. 4. Tag release locations 1980 and recovery locations, Strait of Georgia 1981.

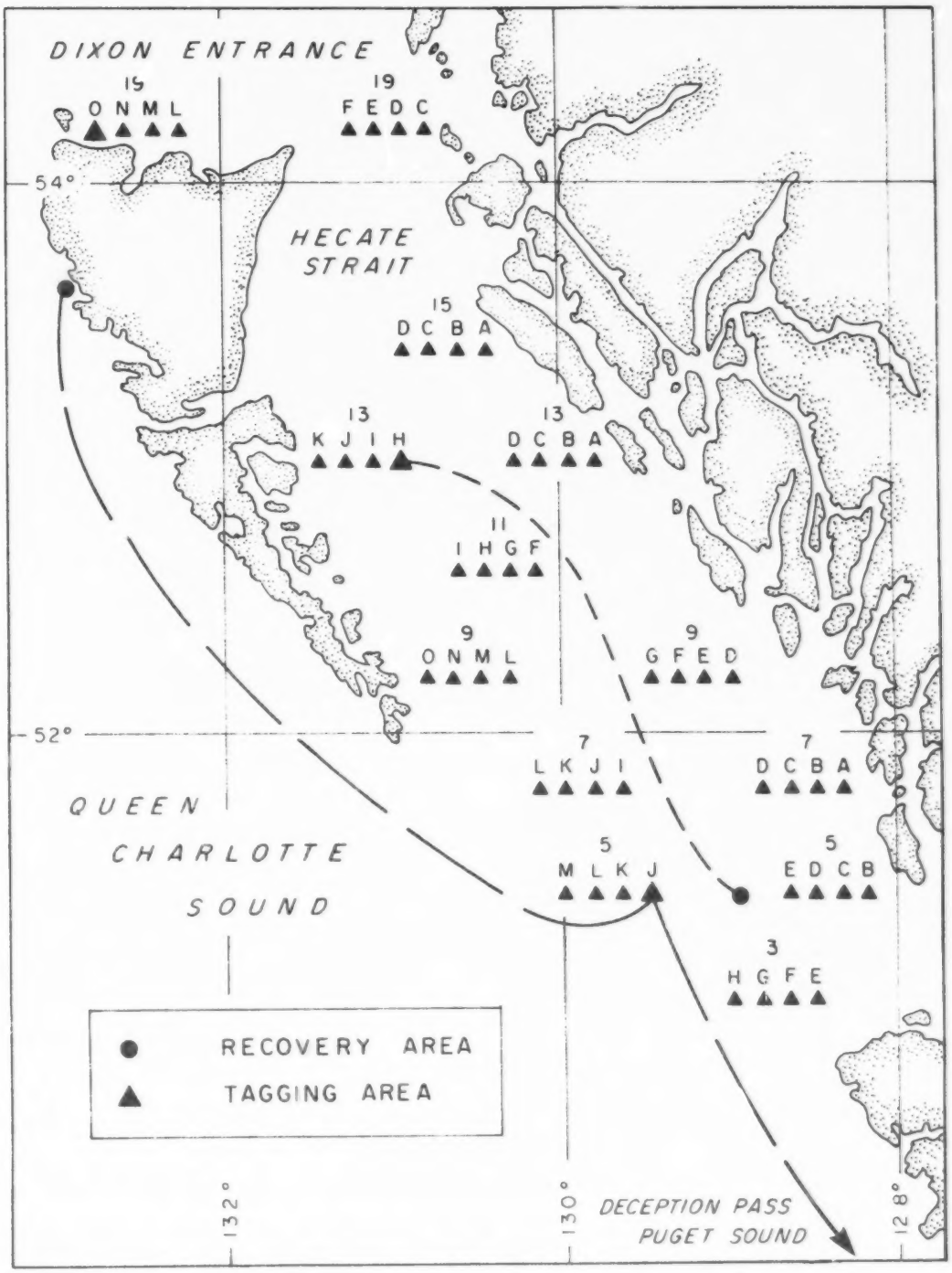

Fig. 5. Tag release locations, Queen Charlotte Sound, Hecate Strait, and Dixon Entrance 1980 and recovery locations 1981.

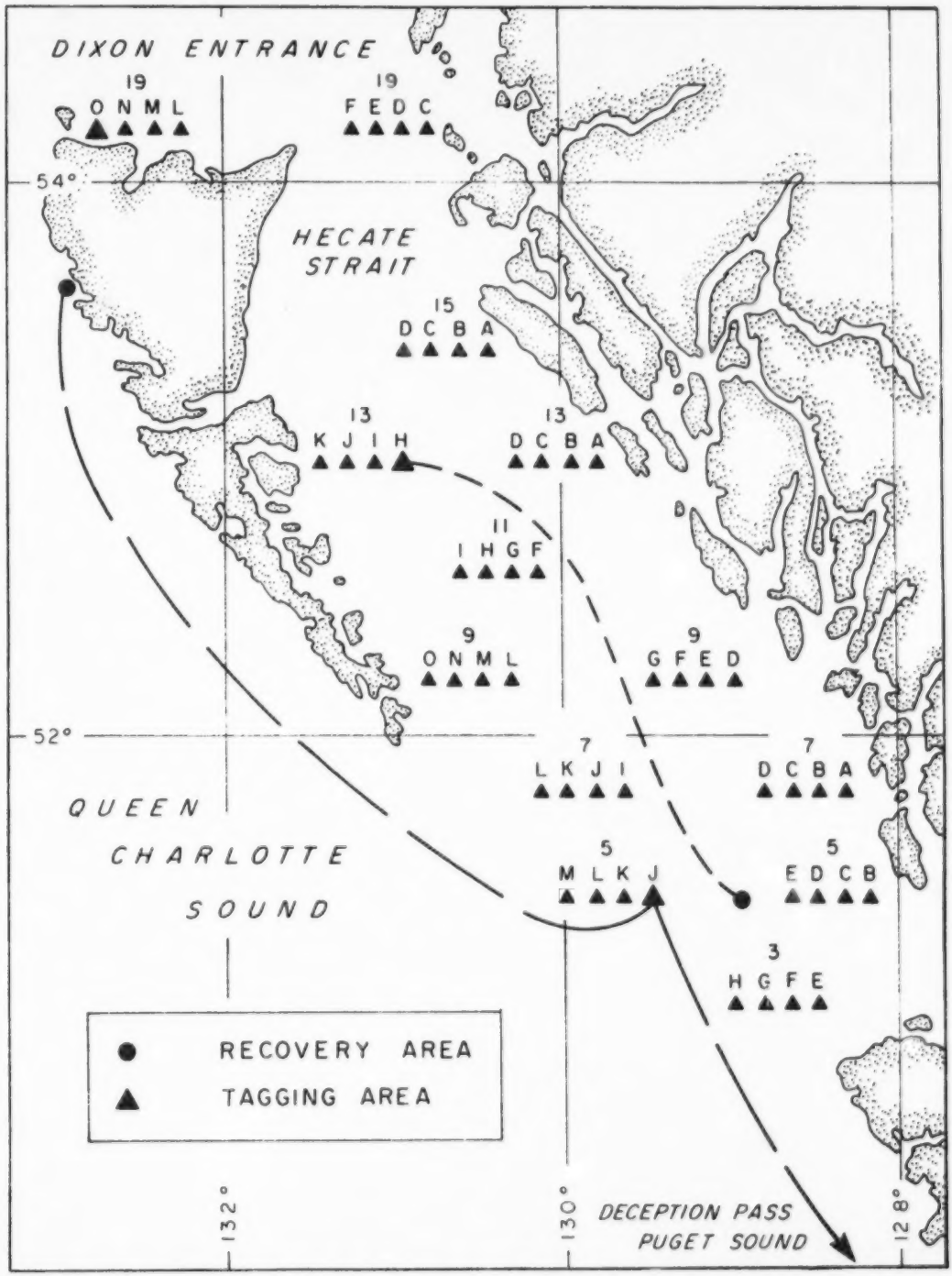

Fig. 5. Tag release locations, Queen Charlotte Sound, Hecate Strait, and Dixon Entrance 1980 and recovery locations 1981.

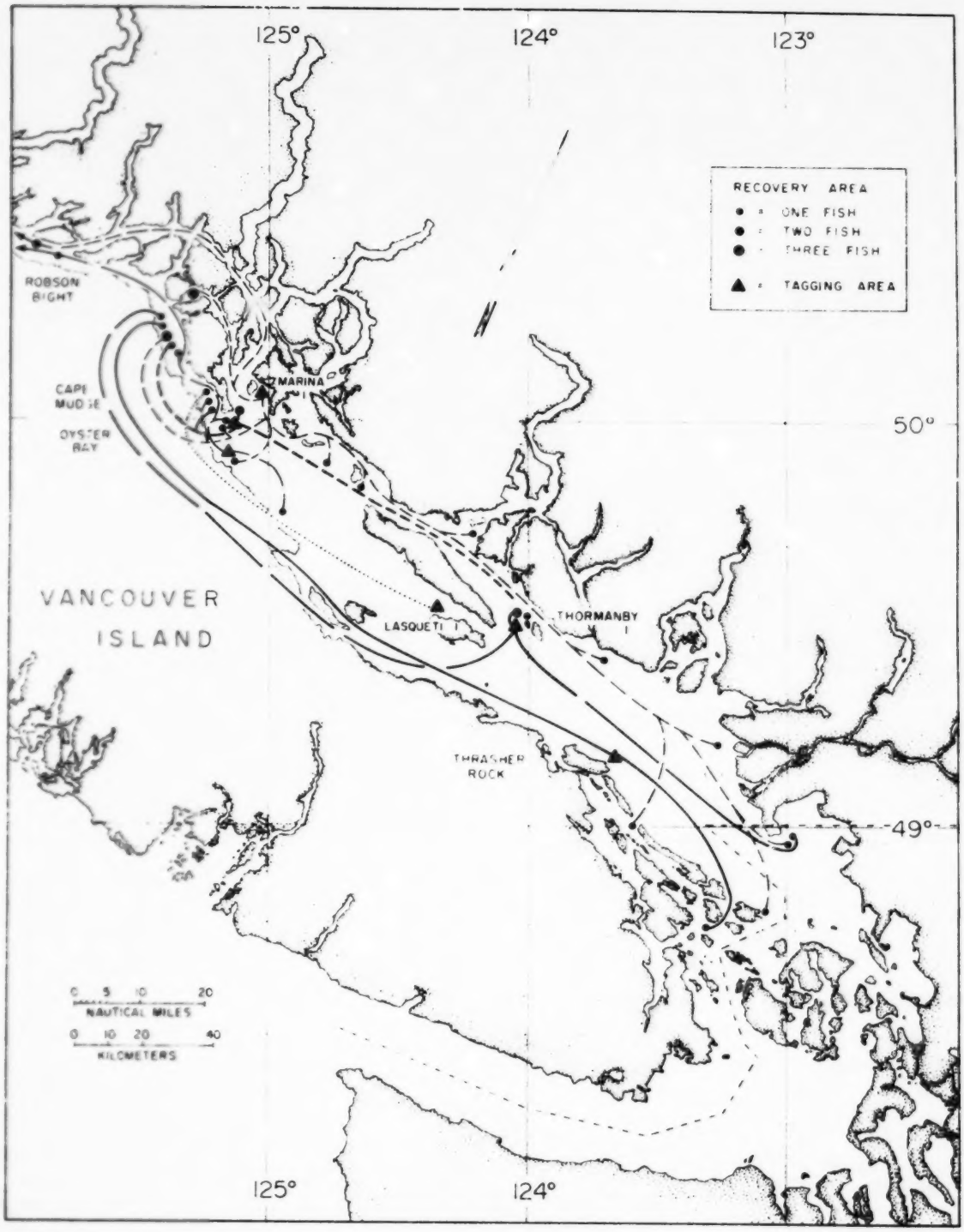

Fig. 6. Tag release locations 1979 and recovery locations, Strait of Georgia 1981.

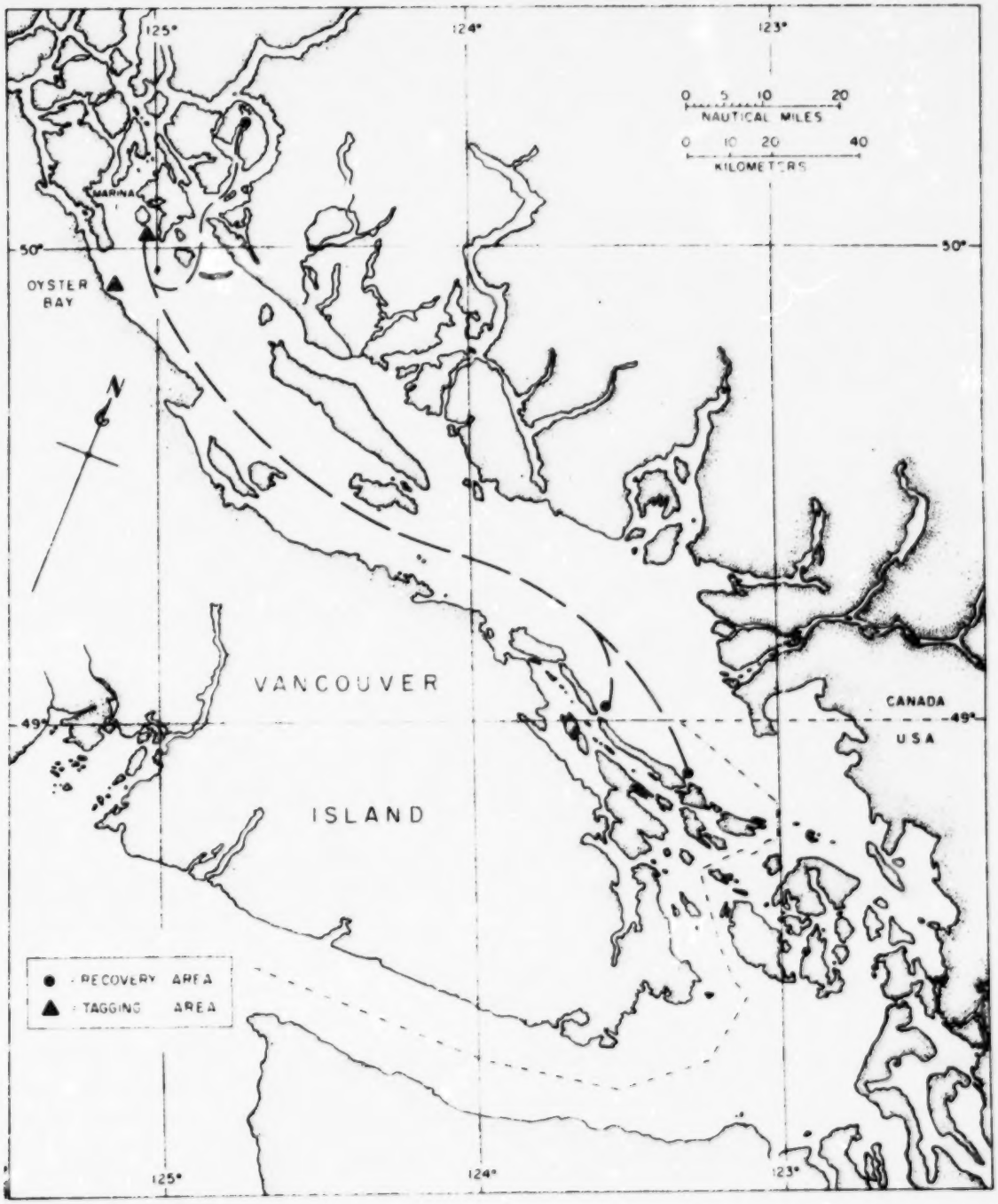

Fig. 7. Tag release locations 1978 and recovery locations, Strait of Georgia 1981.

Fig. 8. Photograph of second dorsal spine with ocytetracycline mark on base. Tag no. 65736.

POOR

QUALITY

ORIGINAL